Original Articles.

THE ART OF COMPANIONSHIP IN MENTAL NURSING.*

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JUST as the "lunatic asylums" of fifty years ago were built throughout as if violent and physically difficult patients were to be their only inmates, so our training schools of today in hospitals for the insane are almost exclusively devoted to instruction in the treatment and management of acute and violent cases and the physically ill.

It is also an important, but generally unrecognized fact,—and old and experienced nurses bear out these statements,—that in but barely a third of the mental and nervous cases to whom the nurse is called will she† find that the technical instruction which she has had in the training school of the hospital for the insane, is of use to her in private work. By technical duties I mean the management and hygiene of the ward, continuous baths, the care of the physically sick, the preparation and serving of food, and the employment of the various measures necessary for dealing with excited and dangerous patients.

It is only in the acute and other severe cases, which form but a small proportion of the mental patients, that these special requirements are called into play, and then the specially trained, fearless and watchful nurse is indeed a godsend to the patient, the physician and the family. The same remark applies to patients in state hospitals. There, apart from the acute and other excited and difficult cases, are hundreds of quiet, semi-sane or convalescent and generally harmless patients who, even if partially demented, are more or less appreciative, for whom such special and skilled nursing is inappropriate and unnecessary.

Consequently, the nurse soon finds on taking up private work that in most cases she has to fall back upon what native common sense, patience, tact, knowledge of human nature and general information she may possess in order to prove acceptable and helpful to her patients. She finds that if she is ever to be the high-grade nurse of her ambition she will be obliged to be nothing short of a companion to her patient,—who is, for example, one of the many mild melancholiacs or psychasthenics or a case of hypomania living at home,—whom she has to persuade and influence so that she will do the things she ought to do, whom she has constantly to reassure, guide and encourage, and for whom she has to do a number of minor offices never suspected in her course at the training school. In short, she has often to fill the rôle of devoted friend and helper, whether or not her efforts are appreciated and responded to by her charge, and to do such work well is often as difficult and trying a task as to deal with a case of acute mental disturbance, although in a far different way.

It is impossible to specify the many and diverse requirements for skilled personal and individual nursing, for it is nursing and of a high type, although such cases have not to be actually handled, bathed, and dressed or, as a rule, physically controlled. Just as it is not easy to put into words exactly what people in general do that makes them congenial and companionable to their personal friends, so it is impossible to give in detail all the qualities and accomplishments which go to the making of the expert companion-nurse. I will not sermonize on the virtues and accomplishments required of the ideal nurse in this line of work, but simply urge the use of the same means in general that we all employ to win our way with others.

In order, however, to emphasize the wide difference there is between individual and hospital nursing in mental diseases, let us run through a few of the daily duties involved in the private work of the expert mental nurse who is alive to her patients' needs. She reads to her charge systematically and often, so far as possible, selecting desirable books and such as would please her when well. She also sees that the patient reads, even training her to read aloud regularly for a definite time each day. Many a silent, partially demented or melancholic patient has been brightened up and improved by thus exercising the disused function of speech. Reading aloud, especially to single patients in state hospitals is so rare an occurrence that some of us can with difficulty recall an instance of it. Of course, the surroundings and the mental condition and lack of intelligence of many patients make this in a large degree impossible, but a fair number of them are not so demented or so ignorant but that they can be reached by such diversion. Some of them have never learned to read and a few do not know how, but more have never acquired the habit of reading. They can and should be encouraged to learn to like it. The teaching of the more demented is advocated and even practiced in one or two advanced hospitals. Is not then the practice of reading an easy and natural way in which to begin or revive the education of some of the less demented? The libraries of our state hospitals, some of them large ones, do not begin to be utilized for patients as they should be or as they are, for example, at the McLean Hospital. Are the books only for a few intelligent patients in the best ward, who have so many

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† For convenience the feminine pronoun is used here in speaking of nurses and patients as the traditional nurse is a woman, but our remarks apply equally to the man nurse and his patient.

other things to interest them? The nurse will also utilize the newspapers, not only for the diversion of her patient, but also for her own improvement, knowing that if she keeps herself informed on the current events of the day or week she will increase her capacity for interesting companionship with all her patients.

It is no news to any intelligent person nowadays that systematic occupation goes a great way toward distracting and engrossing a patient's thoughts. It greatly lightens the companion's task. Most all available kinds are helpful, according to the age, strength and sex of the patients, from embroidery and arts and crafts work to wood cutting and chopping, provided it be free from drudgery and is varied and shared in by the nurse. Dr. Eliot tells us, by the way, that nothing brings content of mind like plenty of hard work that is interesting. The advances made in our state hospitals in this direction have done more than anything else to increase the general content of the patients, the quiet of the wards and a less artificial atmosphere generally.

The nurse will also often have to help in a patient's correspondence and to urge her to write to her relatives or friends. To extort every week or so a few lines of her own composition from a patient may be laborious work, but with patience and persistence not infrequently can be developed into a routine accomplishment when desirable, which will be a help to her and a source of satisfaction to her family. On the other hand, the nurse has also to keep a check on injudicious writing on the part of certain patients, the manic and the paranoid, for example, to accomplish which, without antagonizing them, is anything but easy.

The accomplished companion-nurse will also have as a part of her armamentarium some proficiency at games of various kinds, indoor and outdoor. She will begin early to master solitaire and card games of all kinds and be on the alert for new ones. Out-of-door sports she will pick up with various patients, not a few of whom take a certain satisfaction in teaching the nurse the necessary points.

Regular out-of-door exercise she will make interesting and beneficial by knowing the interesting walks to take and can occasionally cultivate in her charge a love of out-of-door life and nature study. She will also be equally vigilant as to rest hours for her patient as a definite part of the undeviating daily routine of work, play and rest by which the day is hourly piecemealed and which it is so important to establish.

Now personal individual care and attention which is lightly regarded by many as merely "making things pleasant for the patient" and dismissed as "frills" is what, in my experience of thirty years of living in intimate daily and hourly association with mental cases of every description, acute and chronic, mild and violent, makes far more than anything else for the best results that are at all possible. Often the less pronounced acute cases are equally susceptible to their influence. It is the old claim made true of the value of individual care and the nearer we can approach it the better and more scientific is our treatment of the case and the greater the benefit to the patient. In short the methods which really count in the treatment of the mental disease are psychic. Personal attention and influence suitably directed is the essential factor—the *sine qua non*—and to magnify the importance of the technical part of mental nursing is to put the cart before the horse.

We do not for a moment lose sight of the indispensable special methods of treatment for the acute, severe and difficult case of mental disease, continuous baths, the various packs, feeding and close and systematic surveillance which are in constant practice by all physicians in mental cases, but maintain that it is only when the patient's mind has reached a stage when it can be appealed to ever so little by means similar to those I have described that the opportunity for improving her condition begins.

How then is the nurse to fit herself for such important individual duties and acquire the training that is so necessary a part of her life work? She must practice on the patients in the wards. Let her begin by singling out a few for daily regular personal and friendly attention, however slight. It is not enough to be generally kind and helpful superficially to the ward-patients as a whole, as many conscientious and faithful nurses are. She should get down closer to the individual patient. Let her ask her now and then about home and family matters. Our advice to her would be: manage to find time to write a letter home for a patient or two or to help them to do it. Unfailingly encourage good work in whatever the patient does. That costs little time. Acquire and show a little genuine friendly interest and less aloofness toward the individual patient than generally prevails in institutions. All this should not be done fitfully but regularly and systematically, keeping in mind that it is not only the kindly and humane thing to do, but that it is an *important part of your training*, and before long you will not only find a way to extend your influence to others, but will be surprised to see the result to the patient and yourself. Finally when a patient leaves the ward ask yourself whether or not you have made of her a grateful friend and remember that every patient-friend that you have gone out of your way to make, means more to you in future usefulness and practical success in *mental* nursing than months of instruction in hydrotherapy, massage, bandaging, etc., necessary and helpful though they are in special cases.

It follows that all possible means should be tried for giving the nurse who is in training

more time than she now has for such important work directly with the patient. A prominent obstacle, as Dr. Frost has pointed out, is the unnecessary amount of time consumed in study and attendance at the school lectures. There is no question that they could be considerably curtailed without any loss of suitable instruction in the branches that have a direct bearing on nursing in mental disease proper and with distinct gain to the patient. The trouble is that in order to offer a course of training that will attract the right sort of applicants, and heaven knows we need them, certain subjects are taught which relate almost exclusively to physical disease and injury which the mental nurse has to cope with but seldom. In order, therefore, to keep a good staff of nurses for purely mental cases we train them in general nursing in a number of branches that, for practical use, are largely foreign to their legitimate work. An all around training is, of course, desirable for any nurse, but it should not be given at the expense of the patient. The mental nurse would suffer no loss of efficiency and have more time to get closer to her patient if such branches as bacteriology, urinalysis, gynecology, obstetrics and much of the anatomy taught were in some cases omitted altogether and in others materially curtailed. This done, it might be possible to substitute with still a good margin of time, a "current-events" class, for example, a lecture or two on the means for diverting the single patient, reports of personal interviews with patients and their domestic and other troubles which might have a bearing on their condition and their future needs, etc. Prizes offered for the best record in individual work have proved helpful in this direction.

We have enumerated on another occasion the many ways in which a resident social worker in each of our state hospitals could be most useful in the direction mentioned. There is great need of more intelligent lay help other than nurses for hospital patients.

Finally, such methods as are here advocated can only be justly questioned after they have been actually taught and tried in our hospitals. When that is done and they are persistently followed and generally extended, better conditions for recovery will obtain, I believe, the wards will take on a more natural atmosphere and greater ease of administration will follow.

DR. W. W. KEEN HONORED.—At the close of the fourth congress of the International Surgical Association, America was honored by the election of Dr. W. W. Keen of Philadelphia as the president of the next congress. Paris was selected as the place for the meeting of the association in 1917.

CERTAIN ASPECTS OF THE MEDICAL HISTORY OF EXOPHTHALMIC GOITRE.*

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THE names of three men stand out above all others in connection with the medical history of exophthalmic goitre. These names are Caleb Hillier Parry, Robert James Graves and Carl Adolphus von Basedow. All three of these observers lived within fifty years of one another; all three recognized the symptom-complex which bears their names; all three described the disease from entirely different points of view and for entirely different reasons. It is interesting to compare these various authors and to consider what an important influence, seventy-five years ago, environment and training had on medical observation.

Caleb Hillier Parry was born in 1755. His father was a minister in a small English town, but was so well known a scholar throughout England that Johnson tells us his head teemed with knowledge. Parry was an eldest son. He was sent to a good school and from there went to Edinburgh to learn his profession. From his earliest days he was recognized as having manly sense, calmness of temper and philosophical firmness of mind; his genius, his application, his disposition all promised great things. After receiving his degree, he decided to become a general practitioner of medicine and accordingly moved to Bath in 1779.

At that time Bath was the medical centre of the most fashionable English society. Although Mr. Pickwick visited the city after Parry's death, the times had changed but little and the impressions of that astute gentleman are valuable in showing the kind of patients and the kind of life that Parry had to deal with.

Mr. Pickwick tells us that "a visitor in Bath lead a very pleasant existence with perhaps a slight tinge of sameness. Every morning the regular water drinkers met each other in the pump-room, took their quarter of a pint and walked constitutionally. At the afternoon's promenade all the great people and all the morning water-drinkers met in grand assemblage. After this they walked out, or drove out, or were pushed out in bath chairs and met one another again. After this the gentlemen went to the reading rooms and met divisions of the mass. After this they went home. If it were theatre night perhaps they met at the theatre. If it were assembly night they met at the rooms. The ball nights in Bath were moments snatched from Paradise, rendered be-

* A part of this paper was read at a meeting of The Historical Society of the Harvard Medical School on March 3, 1914.

witching by music, beauty, elegance, fashion, etiquette and above all by the absence of tradespeople. In the ball-room and the passages, the hum of many voices and the sound of many feet were perfectly bewildering. Dresses rustled, feathers waved, lights shone and jewels sparkled. Brilliant eyes, lighted up with pleasurable expectation, gleamed from every side; and look where you would some exquisite form glided gracefully through the throng and was no sooner lost than it was replaced by another as dainty and bewitching."

It was in such gay surroundings that Parry began the practice of medicine. At first it was discouraging. "A great part," he wrote, "of the obstacles to the improvement of the science of medicine originates in the habit of self-indulgence, leading persons to the gratification of present appetite, or the removal of present suffering with little or no consideration of the future. A man shall be grossly ignorant of the whole science of medicine, yet if he has a certain degree of assurance, aided by an adequate number of fashionable phrases, with a determined resolution of flattering his patients by an appearance of great zeal and attachment, and by confirming the good opinion which they entertain of their own discernment in the choice of medicine and diet which they most like, that man shall grow popular and rich and become accessory to the daily destruction of his fellow-creatures."

But as time went on Parry became a fashionable doctor in his turn, and it appears that nearly the whole catalogue of British nobility and many of the most distinguished men in the kingdom came to him for advice. He was even acquainted with the King, who accepted a piece of cloth manufactured from some of Parry's sheep and declared that from its excellent quality, he should feel a pride in wearing it.

In his early days Parry acquired the habit of taking full and complete notes on every case which came under his control. In his later years he contented himself with the more useful task of recording such cases as led to the establishment of principles. His writings therefore are based entirely on his own personal observations and cover a large field of subjects. They were not made, however, from the point of view of a teacher or student of medicine, but rather as objective descriptions of what he saw. This is shown by a quotation of his first case of exophthalmic goitre published in his "Posthumous Papers" in 1825.

"ENLARGEMENT OF THE THYROID GLAND IN CONNECTION WITH ENLARGEMENT OR PALPITATION OF THE HEART.

"CASE 1. There is one malady which I have in five cases seen coincident with what appeared to be enlargement of the heart, and which so far as I know, has not been noticed, in that connection, by medical writers. The malady to which I allude is enlargement of the thyroid gland.

"The first case of this coincidence which I witnessed was that of Grace B., a married woman, aged 34, in the month of August, 1786. Six years before this period she caught cold in lying in, and for a month suffered under a very acute rheumatic fever, subsequently to which, she became subject to more or less palpitation of the heart, very much augmented by bodily exercise, and gradually increasing in force and frequency till my attendance, when it was so vehement that each systole of the heart shook the whole thorax. Her pulse was 156 in a minute, very full and hard, alike in both wrists, irregular as to strength, and intermitting at least once in six beats. She had no cough, tendency to fainting, or blueness of the skin, but twice or thrice had been seized in the night with a sense of constriction and difficulty of breathing, which was attended with a spitting of a small quantity of blood. She described herself also as having frequent and violent stitches of pain about the lower part of the sternum.

"About three months after lying in, while she was suckling her child, a lump about the size of a walnut was perceived on the right side of her neck. This continued to enlarge till the period of my attendance, when it occupied both sides of her neck, so as to have reached an enormous size, projecting forwards before the margin of the lower jaw. The part swelled was the thyroid gland. The carotid arteries on each side were greatly distended; the eyes were protruded from their sockets, and the countenance exhibited an appearance of agitation and distress, especially on any muscular exertion, which I have rarely seen equalled. She suffered no pain in her head, but was frequently affected with giddinesss."

Besides his remarks on this condition, there are found among his medical writings careful studies on thoracic affections, abdominal affections and affections of the genito-urinary organs. His two best known monographs are the "Inquiry into the Symptoms and Causes of Syncope Angina called Angina Pectoris," and "The Nature, Cause and Varieties of the Arterial Pulse." He was interested in many other matters as shown by the titles of a few of his agricultural papers which include, "An Account of a Prize Crop of Cabbages." "Tables of the Female Descendents from 100 Yearling Ewes during Twenty years." "Observations on the English Race Horse."

On the whole, Parry was a fine and elevated character, a man of culture and great charm of manner, a tireless student and note taker. Above all he was a practitioner of medicine, writing, in part, because he had scholarly tastes and scholarly upbringing with such a man's love of the pen, and in part, because, as he said, the business of man was not merely to eat, to drink, to sleep, to enjoy sensual pleasures and then to lay himself down to die, but because it was also the business of man to make the world better after him and to give it the benefit of his experience. He died in 1822.

Robert James Graves was born in Dublin in 1797. He, too, was descended from scholarly people and was brought up in a well-to-do household. His father was a senior fellow of Trinity College and Regius Professor of Divinty, Graves, himself, received a careful preliminary education and went to Trinity College. While there, with two exceptions, he obtained the first prize in classics and science at every examination, and received a gold medal on taking his A. B. degree. He studied medicine with equal zeal and industry, thus it may be assumed that he, too, was a youth of unusual promise.

In Ireland, following its union with England, there was a period of mental inactivity throughout the entire country. Ireland's great men had disappeared, her orators and her advocates were no longer heard unless feebly, and her young men were apathetic. Even Dublin felt the effect of this general mental languor according to Thackeray's description. "A handsomer town with fewer people in it, it is impossible to see on a summer's day. In the whole wide square of Stephen's Green, I think there were not more than two nursery maids to keep company with the statue of George I, who rides horseback in the middle of the garden, the horse having his foot up to trot, as if he wanted to go out of town too. Small troops of dirty children (too poor and dirty to have lodgings at Kingstown) were squatting here and there upon the sunshiney steps, the only clients on the thresholds of the professional gentlemen whose names figure on brass-plates on the doors. A stand of lazy carmen, a policeman or two with clinking boot-heels, a couple of moaning beggars leaning against the rails and calling upon the Lord, and a fellow with a toy and book stall were all the population of the Green.

"At the door of the Kildare Street Club, I saw eight gentlemen looking at two boys playing at leap frog; at the door of the University six lazy porters, in jocky caps, were sunning themselves on a bench,—a sort of blue bottle race— and the Bank on the opposite side did not look as if six pence worth of change had been negotiated there during the day. There was a lad pretending to sell umbrellas under the colonnade, almost the only instance of trade going on."

Since there were few resident nobility or gentry, the professors of law and medicine formed the aristocracy of the city. But the Dublin Medical Schools, too, had suffered from the Irish torpor. Their chief attraction was less the characters of their professors or the number of the original works which issued from them, than the circumstance that of all the cities in the British Empire, Dublin was the one in which the greatest supply of dead bodies for dissection could be obtained. Clinical teaching was unknown, and there was little if any anxiety to encourage the individual pupil to learn.

It was in such surroundings that Graves in 1818 received the degree of Bachelor of Medicine from Trinity College. It must be remembered that he was young, keen-minded, and discerning enough to realize that he had not been educated with any degree of thoroughness. Therefore, as he afterward said, he did not begin life as a practitioner without practice, but for the next three years he studied medicine and the ways of teaching medicine in the better known universities of England, Germany, France and Italy. His trip abroad had a profound effect on his entire life. He returned to Dublin, ardent, energetic, filled with a desire to teach, and well trained not only in clinical subjects, but also, in the allied sciences of pathology, physiology and chemistry. He at once established a private school in medicine and was appointed physician to the Meath Hospital. It was here, that Graves delivered his introductory lecture to the students and pointed out the broad principles of medical education which gave him his unique place in the history of medical teaching.

In this lecture Graves took up the methods of instruction which were in vogue in Italy, France and England. In these countries the clinical side of medicine was taught by a system of ward rounds. The instructor walked from bed to bed examining the patients and expressing his opinions in a loud tone of voice so that the whole audience could hear what was going on. Graves' chief objection to this kind of teaching was that however well inclined the student might be, he was never obliged to exercise his own judgment in distinguishing diseases and had no opportunity to try his skill in their cure.

Graves determined to follow out the German method of clinical instruction. According to this, various members of the class were held responsible for the history, the examination, and the treatment of various cases. At ward rounds each student would report his case in the presence of the instructor, who satisfied himself whether all the necessary particulars had been accurately reported by the pupil. After the patients had been examined the professor and his class proceeded to the lecture room. The pupils were examined concerning the nature of the diseases studied, their probable termination, and the most appropriate method of treatment, each man answering only concerning the patients entrusted to his special care. During the examination the student's diagnosis and proposed remedies were submitted to the consideration of the professor who corrected whatever appeared to be erroneous in either. At the conclusion the prescriptions were read by the professor who strictly commented on, and corrected any inaccuracy or inelegance they might contain. The advan-

tages gained by such "practising pupils" seemed too obvious to require comment; being obliged to give reasons for every plan of cure that they proposed, the students became accustomed to a rational and careful investigation of diseases; and enjoying the most important of all advantages—the early correction of their errors—they commenced private practice with a sufficient degree of experience to render them unlikely to commit any serious mistakes. In other words, Graves believed that the hospital was a place to convert theoretical into practical knowledge; a place to observe the symptoms of diseases previously known to students only through the medium of books or lectures; a place to learn the art of recognizing these symptoms and of appreciating their relative importance and value; a place to study their connection with morbid alterations of internal organs; and, finally, a place to become acquainted with the best method of relieving patients by the application of appropriate remedies. This method of instruction was a radical innovation to the Medical Schools of Dublin, but became entirely successful and gave Graves a universal reputation as a teacher. Trousseau says of him, "For many years I have spoken of Graves in my clinical lectures. I recommend the perusal of his work; I entreat those of my pupils who understand English to consider it as their breviary; I say and repeat, that, of all the practical works published in our time, I am acquainted with none more useful, more intellectual."

As a result of his experience as a teacher Graves published his System of Clinical Medicine in 1843, composed of lectures which had previously appeared in the medical papers of the day. The book contained in it Graves opinion on such subjects as nursing, consumption, the treatment of fevers, etc., and included his remarks on exophthalmic goitre.*

In describing the latter disease, Graves mentions that he had lately seen three cases of violent and long-continued palpitations in females, in each of which the same peculiarity presented itself, viz., enlargement of the thyroid gland. The most typical case is given in detail.

"A lady aged 20, became affected with some symptoms which were supposed to be hysterical. This occurred more than two years ago; her health previously had been good. After she had been in this nervous state about three months, it was observed that her pulse had become singularly rapid. This rapidity existed without any apparent cause, and was constant, the pulse being never under 120, and often much higher. She next complained of weakness on exertion, and began to look pale and thin. Thus she continued for a year, but during this time she manifestly lost ground on the whole, the rapidity of the heart's action having never ceased. It was now observed that the eyes assumed a singular appearance, for the eyeballs were apparently enlarged, so that when she slept or tried to shut her eyes, the lids were incapable of closing. When the eyes were open, the white sclerotic could be seen, to a breadth of several lines, all round the cornea.

"In a few months, the action of the heart continuing with increasing violence, a tumor, of a horse-shoe shape, appeared on the front of the throat, and exactly in the situation of the thyroid gland. This was at first soft, but soon attained a greater hardness, though still elastic. From the time it was first observed, it has increased little, if at all, in size, and is now about thrice the natural bulk of the fully developed gland in a female after the age of puberty. It is somewhat larger on the right side than on the left.

"A circumstance well worthy of notice has been observed in this young lady's case, which may serve to throw some light on the nature of this thyroid tumefaction. The circumstance I allude to is, that from an early period of the disease a remarkable disproportion was found to exist between the beats of the radial and the carotid arteries, the pulsation of the former being comparatively feeble, while those of the latter were violent, causing a most evident throbbing of the neck, and accompanied by a loud rustling sound. In about fourteen months the heart presented all the signs of Laennec's passive aneurysm; the tumor in the neck is subject to remarkable variations in size, sometimes diminishing nearly one-half. None of her family have had goitre, nor was she ever in any of the usual localities of the disease."

This description is sufficiently concise and sharp to make one realize that as a lecturer, Graves must have been distinguished by force and clearness of language. This impression is well substantiated by his clinic on the treatment of fevers. "In a patient laboring under fever and a protracted abstinence from food, whose sensibilities are blunted and whose functions are deranged, it is not at all improbable that such a person will not call for food although requiring it; and if you do not press it on him, and give it as a medicine, symptoms like those which arise from starvation in a healthy subject may supervene. You may, perhaps, think it unnecessary to give food, as the patient appears to have no appetite and does not call for it. You might as well think of allowing the urine to accumulate in the bladder because the patient feels no desire to pass it."

The following story illustrates how keenly he felt the truth of what he taught. He was going around the hospital one day and entered the convalescent ward. He began to expatiate on the healthy appearance of some patients who had recovered from severe typhus. "This is all the effect of our good feeding," he exclaimed, "and lest, when I am gone, you may be at a loss for an epitaph for me, let me give you one in three words: 'He fed fevers.'"

During many years Graves enjoyed a large and lucrative practice, and was much sought after as a consultant. Yet it is as a teacher, and not as a practitioner of medicine that he must be remembered. He was a strong man,

* The original paper was published in 1835.

and a bold man, capable of holding friends and enemies. He came to Ireland at a time when medical education in that country was at lowest ebb, yet by his efforts he made the Dublin School universally known, and exercised a great influence on medical teaching in England, France and America. His own words are his best epitome, "If a teacher neglects his duty, if he teaches erroneously, his negligence and his error are multiplied indefinitely by those whom he ought to have better instructed; the scene of his guilt, for it deserves no better name, becomes fearfully enlarged, for there is no country so remote that it may not contribute victims to the incapacity of his pupils. But if, on the contrary, he works with zeal and diligence, a compensation awaits him to which scarcely any member of any profession can attain."

He died in 1853.

Carl Adolphus von Basedow was born in Dessau in 1799. His father was a government councillor and his uncle a distinguished teacher. Thus he, as well as Parry and Graves had the advantages of comfortable surroundings and a good up-bringing. He attended school in his native city but went to Halle University to learn medicine.

The University of Halle was the first of the German universities to be founded on the principle of free research and instruction. The older teaching was based upon the assumption that the truth had already been given, and that instruction had merely to do with its transmission. In Halle, however, it was believed that the truth must be discovered and that it was the duty of a college to qualify and guide the student in this search. Von Basedow fell under such influences.

After graduation in 1821, he moved to Merseburg. The town is one of the oldest and most picturesque in Germany; it is situated on the river Saale, and has always been small and unprogressive. Its most striking features are its cathedral, its town hall and castle. It appears to be a very typical, old-fashioned German village.

Von Basedow practised here until his death. The influence of his early training is well shown by his article on exophthalmic goitre which appeared in 1840, and is the first complete monograph on the subject. It begins by citing all the available literature that Basedow could find. He reports four cases of his own, occurring in three women and a man. All had exophthalmos and goitre, three had frequent pulse, two palpitation. Other symptoms were emaciation, dyspnea, edema, nervousness, diarrhoea and mild sweating.

He explained the exophthalmos as due to hypertrophy of the orbital tissues, "strumous" in the sense of goitrous. While his physiology and conception of the disease differed from the views now held, nevertheless, von Basedow was the first observer to attempt to study exophthalmic goitre as a disease and his article is remarkably complete. He wrote various other monographs on medicine and surgery, none of which are as well known as the one on goitre. He died in 1854 as a result of infecting himself at an autopsy on a case of typhus fever.

It is impossible to study the lives of these three men without feeling the important influence that environment had on their characters. Parry lived in the centre of fashion, and his interests were associated with those of the people with whom he came in contact. He had no university connections to stimulate him. As a result, he developed the tact in handling his patients and the knowledge of men that made him so successful. He was a broad-minded man, well informed about the variety of subjects which interest the educated Englishman who lives in the country but who deals with all classes of people. He was a splendid example of the general practitioner,* 'the flower (such as it is) of our civilization, and one who shared as little as any in the defects of the period, and most notably exhibited the virtues of the race.'

Graves lived in a university town where scholastic success represented the pinnacle of greatness. As a result the practice of medicine became to him of secondary importance. His aim was to improve the conditions for medical education in his own school and elsewhere, and his ambition was to make himself a clinical teacher. By insisting that the most essential part of a student's instruction was obtained at the bedside in close contact with the patient, he showed a far-sighted policy, carried it out, and materially changed the plan of medical teaching in England and America.

Von Basedow lived in a small German town. He was uninfluenced by the cares of a lucrative practice or the responsibilities of a university professorship. He lived his own life as an upright citizen, studying carefully the subjects that interested him, and describing them completely and well It is a pity that more details of his life and character are not known.

Whether exophthalmic goitre be called Parry's disease, or Graves' disease, or Basedow's disease, all three of these physicians deserve places in the history of medicine. It is difficult to find more perfect models of the practitioner of medicine, the teacher of medicine, or the student of medicine.

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THE DEMONSTRATION OF GALL-STONES BY THE ROENTGEN RAY.

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AND

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UP TO within the past year, the demonstration of gall-stones upon plates by the Roentgen method has been regarded generally as a rare curiosity. Of late, however, Roentgenologists are learning more and more how to demonstrate these stones, so that the examination may be of definite diagnostic and prognostic value to the practitioner.

We believe that this advance has been peculiarly an American one. Carl Beck showed the first plates of gall-stones at a meeting in New York in 1899.[1] Since then he has devoted considerable energy to a development of the technique of gall-stone Roentgenography. More recently Case[2] and Cole[3] have both published numerous cases of gall-stones.

The practical application of the Roentgen method to gall-stone diagnosis has apparently not spread so rapidly on the other side of the Atlantic. Ewald, in his very recently published monograph on diseases of the liver,[4] states that—"unfortunately radioscopy has, up to the present, given us no reliable data for the recognition of gall-stones. The few cases that have been demonstrated were all rare exceptions of pure calcium stones."

This statement is by no means true as regards the present status of gall-stone diagnosis in this country.

In our own experience we began to find the shadows of gall-stones by accident during the course of the bismuth examinations of the alimentary tract. Gradually the accidental findings became so frequent that we found it advisable to look for gall-stones in every case. At present we have adopted the routine method of examining the gall-bladder region in every patient, before giving the bismuth meal.

Pure cholesterin stones, as is well known, do not have a density differing much from that of the general abdominal contents; therefore they will not interrupt the Roentgen Rays to any appreciable degree, so that their shadows cannot be differentiated. Fortunately however, these pure cholesterin stones are not common,[5] or at least do not cause many chronic disturbances. When the gall-bladder is chronically inflamed with repeated infections, the stones that are deposited have the characteristic lamellae of calcium and bile salts encrusted on the cholesterin core. It is only the calcium admixtures that we can show by the Roentgen Ray. Therefore, the clearness of demonstration of gall-stones upon the plates will be in proportion to the amount of calcium present.

As a rule nearly every case which has symptoms referable to gall-stones will have some calcium.[5] Of course the Roentgen demonstration of gall-stones has not yet reached the position that has already been attained with regard to renal and ureteral calculi. However, at present we believe that with care, and with attention especially directed to the gall-bladder region, gall-stones can be demonstrated in nearly every case where the symptoms have been of long duration, and gall-stones are really present.

In the near future we hope that the certainty of diagnosis will approach that which already has been reached with renal calculi. At any rate, before long it will be possible to state definitely whether there are gall-stones present containing calcium or not.

The technique for the demonstration of gall-stones is very simple. The complicated methods which have been devised for projecting away the liver shadow, etc. are entirely unnecessary. The patient lies upon the table with his face down. The plate is placed under the right hypochondriac region. The maximum of sharp definition is obtained with a very small diaphragm, 1½ inches in diameter, and a very small cylinder placed close down upon the back. It is preferable to use a fairly soft tube with a rapid exposure. It is better not to use intensifying screens, but to use the simple plates as in kidney work.

The gall-stone shadows will vary according to their calcium content. Often there will be a central light area due to the cholesterin core, with a peripheral calcium shadow. (Fig. 1.) Occasionally there may be made out the irregular deposits of calcium corresponding to the lamellated structure. (Fig. 1, stone 2.) At times the shadow will be dense and almost uniform, when there is considerable calcium salt present. (Fig. 2.) As a rule the faceted outlines will

FIG. 1.—Two large faceted gall-stones, in a man weighing nearly 200 pounds. Hepatic flexure adherent to gall-bladder region. (Note the varying density of the ribs, gall-stones, and bismuth.)

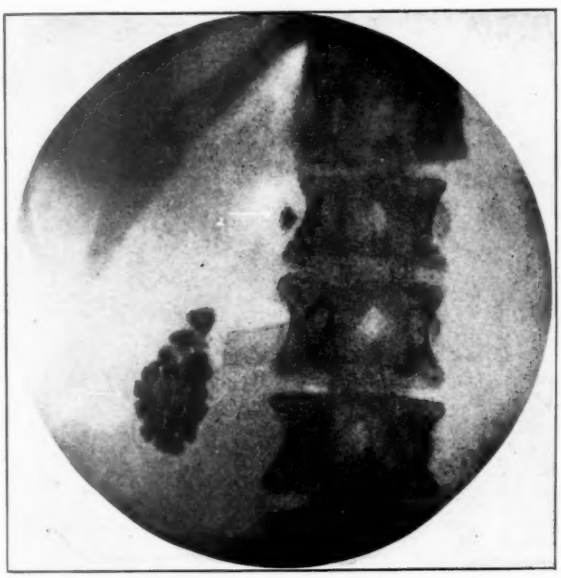
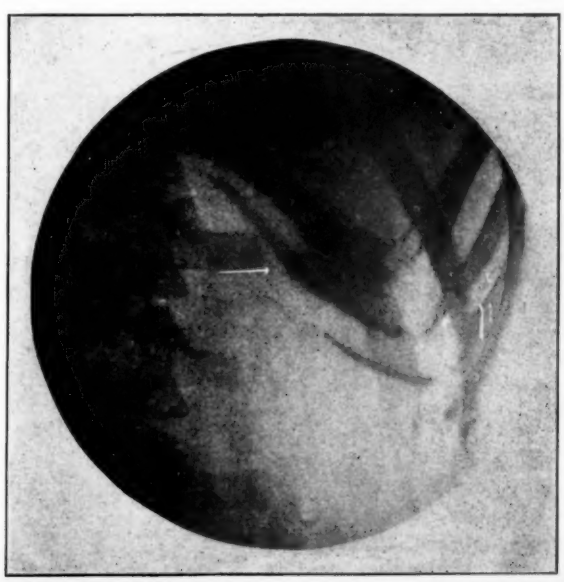


FIG. 2.—1. Mass of stones filling gall-bladder.
2. Single stone in cystic duct, near entrance to common duct.

FIG. 4.—1. Large conglomerate mulberry stone, with numerous areas of calcification.
2. Edge of gall-bladder.
3. Edge of liver.

FIG. 5.—1. Mass of nearly forty small gall-stones.
2. Antrum of stomach, demonstrated by fluoroscope to be adherent to gall-bladder region.
3. Pressure effect of gall-bladder upon antrum.



be clear, although at times the calcium masses may be circular or irregular. The stones will sometimes be closely packed in a mass, corresponding to the gall-bladder boundaries. At other times the shadows may be more separately scattered throughout the gall-bladder region. When the faceted outlines are distinct, it is easy to tell that there are many stones present. However, when the shadows give the appearance of a single conglomerate mass, one is easily led into error. We have seen essentially the same picture prove in one case (Fig. 4) to be a single conglomerate stone of the mulberry type, and in another case it proved to be a mass of closely packed small stones. (Fig. 5.) The shadows of gall-stones may, in rare instances, be entirely obscured by a very greatly thickened gall-bladder.

In addition to the gall-stones, we are usually able to show other indirect evidences of gall-bladder disease, by the later bismuth examination. These consist of the evidences of adhesions due to pericholecystitis. The duodenum and antrum of the stomach occupy an abnormal right sided position in the sub-hepatic region, and on manipulation appear to be fixed there. (Fig. 5.) The hepatic flexure, or some parts of the proximal transverse colon, may be demonstrated as adherent to the gall-bladder. (Fig. 1.) However, these accessory aids merely mean adhesions in the gall-bladder region. They may be congenital adhesions, or the results of chronic gall-bladder disease without stones. The actual demonstration of the gall-stones themselves establishes the diagnosis without a doubt.

The commonest sources of error in the diagnosis of gall-stones are renal calculi, calcified mesenteric glands, and costo-chondral ossification.

Renal calculi usually cause confusion when we do not find the characteristic light cholesterin cores and faceted outlines, or when we have single or conglomerate stones. The writers have, however, seen renal calculi that showed definitely faceted outlines, and on a single Roentgen plate could easily be interpreted as gall-stones. The differentiation can usually be made by taking similar plates with the patient lying first on his abdomen and then on his back. Gall-stones are nearer the anterior abdominal wall, while renal calculi are nearer the back. Therefore the anterior plates in the case of gall-stones will show the shadows small and sharp, whereas the plates taken on the back show the shadows larger and more blurred. Just the reverse occurs in the case of renal stones; that is, the posterior plates show smaller and sharper shadows than the anterior plates. The shadows of renal calculi usually bear a constant relation to the kidney outline, whereas those of gall-stones may change their relative position with changes in the projection angle.

Calcified mesenteric glands will be found to occupy somewhat different positions in different plates, by manipulating the abdominal contents between exposures. As a rule they are found much lower than the gall-bladder region. Also there will be found very little difference as regards the postero-anterior, or the antero-posterior exposures.

Ossification of the *costal cartilages* may produce a calcium mass simulating a number of gall-stones. (Fig. 6.) On careful observation, however, this mass will be found continuous with the ends of the ribs, and also similar masses will usually be found in the left hyprochondriac region.

In our routine work, gall-stones have been found in cases where their presence was at first entirely unsuspected. Later a careful history has brought out symptoms attributable to them. Again they have been found in cases where the entire attention of the physician had previously been directed to their secondary manifestations in the stomach or bowel. In these cases no symptoms of gall-bladder trouble could ever be elicited. This has been especially true in several cases of anacidity, and one of true achylia, resulting from gall-bladder disease. We therefore believe that a routine examination of the gall-bladder region is of considerable importance as a preliminary to the later bismuth examination of the alimentary tract.

SUMMARY.

The demonstration of gall-stones by the Roentgen Ray has already reached a position in this country that warrants its more general use as a dependable aid to diagnosis.

It is advisable to examine the gall-bladder region for stones prior to every bismuth examination of the alimentary tract.

We believe that gall-stones can be demonstrated by the Roentgen Ray in nearly every case of gall-bladder disease of long standing where stones are really present.

The chief sources of error are renal calculi, calcified mesenteric glands, and costo-chondral ossification. These can be differentiated by proper technique.

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GIFT TO LEONARD HOSPITAL.—Mrs. Russell Sage of New York has signified her intention to give $25,000 to the Leonard Hospital, Troy, provided the residents of that city will raise an additional $40,000.

INTRACRANIAL HÆMORRHAGE IN THE NEWBORN.*

BY ROBERT M. GREEN, M.D., BOSTON.

[From the Clinic of the Boston Lying-in Hospital.]

INTRACRANIAL hæmorrhage in the newborn either may be due to the trauma of labor, natural or instrumental, or may be associated with the disease known as *haemorrhagica neonatorum*. In the former instance, the treatment is purely local; in the latter, the local treatment becomes secondary to that of the general condition. In either case, early recognition of the symptoms is of extreme importance, since any operative treatment, if indicated, must be prompt to be effective. This review of the subject will be illustrated by cases from the clinic of the Boston Lying-in Hospital, for the privilege of observing and reporting which I wish herewith to express my grateful acknowledgment to the Visiting Physician.

Trauma, especially of difficult forceps delivery through a contracted pelvis, has long been recognized as the commonest cause of intracranial hæmorrhage in the newborn. There may be little or no external evidence of injury; the baby usually seems normal in every way; and symptoms of its condition seldom appear before the second day, and sometimes not until the fourth or fifth, probably depending on the amount and rapidity of the hæmorrhage. As a rule the latter is usually venous, and of slow oozing character. The signs, which theoretically should be those of progressive increase of intracranial pressure, are seldom typical, as in an adult, but are often modified into a clinical picture, which, though distinct and definite when once recognized, is not that which *a priori* one would expect.

Abels[1] emphasizes the similarity of this picture to that of traumatic tetanus. He points out, however, that strabismus and nystagmus are often absent in hæmorrhage, and that the extent of the convulsions is seldom as great as in tetanus. In my experience the reflex and motor phenomena are frequently unreliable guides to diagnosis or as localizing signs. The two following cases may serve to indicate the type of clinical picture more often met in traumatic intracranial hæmorrhage due to forceps extraction.

CASE 1. Baby S. (B. L. H. 149-92. No. 16570). Male. Born March 31, 1909, by difficult multiparous high forceps extraction. Weight, 9 lbs. 13 oz. Easily resuscitated. Appeared normal and nursed until 48 hours old, when it began to refuse the breast. Its cry, previously lusty, became feeble and querulous. Physical examination showed marked general pallor of skin and mucous membranes. Face slightly puffy. No bulging of fontanelles. No alteration of reflexes. No external hæmorrhage. Thorax and abdomen normal. The baby was stimulated with heaters and brandy, but died in a few hours without development of further symptoms. Post-mortem examination: The right cheek anterior to the right ear, and the left cheek in the corresponding situation, show a broad purplish area of discoloration. On section, the tissues of the scalp are found infiltrated with a considerable amount of blood-like material. This infiltration is continuous with a similar condition in the subcutaneous tissues of the upper part of the areas of purplish discoloration described above. There is no break in the continuity of the tissues along the sutures, and no bulging of the fontanelles. On opening the skull, a large amount of fluid blood escapes from beneath the dura, and on removing the brain the convexities of the hemispheres are found covered with a rather thick layer of blood-clot. This is situated mainly in the region of the posterior half, but it extends forward laterally as far as the temporal lobe. At the base, there is a slight amount of clot along the crura and over the pons. On section, the brain tissue is not remarkable. The sinuses, as far as can be made out, are intact, and the hæmorrhage is probably due to a break or breaks in the pial vessels. The trunk was not examined.

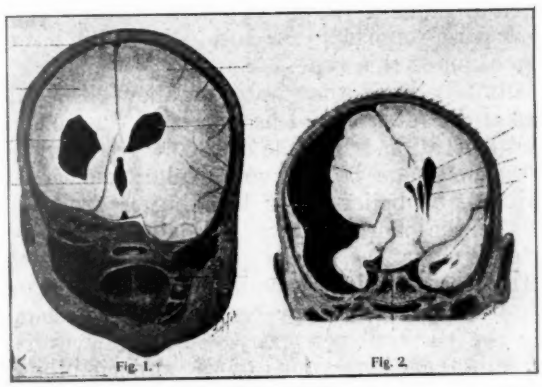
CASE 2. Baby P. (B. L. H. 152-46. No. 16906). Female. Born August 29, 1909, by difficult forceps extraction through a contracted primiparous pelvic outlet. Weight, 7 lbs. 10 oz. Baby easily resuscitated and cried vigorously. Face considerably traumatized. No cephalhematoma. Nursed well until the fourth day, when it began to refuse the breast, and to develop general pallor and progressive œdema of the right side of the face. Cry feeble and moaning. Physical examination was entirely negative. Lumbar puncture yielded clear fluid. The baby was fed breast milk with a medicine dropper and stimulated with brandy and subpectoral salt solution, but continued to fail, and died, without convulsions, on September 5.

Post-mortem examination: On the right side of the head, the tissues are swollen and show dark reddish discoloration. On section, the subcutaneous tissues are swollen and markedly infiltrated with brownish red, bloody fluid. No fractures of the skull are made out. The sutures are intact. On opening the skull, there is a moderate amount of frank blood-clot resting here and there over the right hemisphere, and a considerable amount of blood-like material in the right middle fossa. This blood is all subdural. No definite laceration of brain-tissue is made out. The sinuses are intact. Trunk: the peritoneal cavity is not remarkable, and the stump of the umbilical cord is in good condition.

It appears from these cases that subdural hæmorrhage of fatal grade may occur without producing the classic signs either of intracranial pressure or of traumatic tetanus. Indeed, I have come to feel, from observation of over a dozen cases, that, given an adequate history, a presumptive diagnosis of intracranial hæmorrhage may be made in any baby that, within a few days of birth, becomes pale, refuses the breast, and shows a peculiar, though slight, facial œdema. This latter sign, presumably due to back pressure from within the skull on superfi-

* Read at a meeting of the Surgical Fortnightly Club on Feb. 24, 1914.

cial veins emptying into the dural sinuses, I have felt to be a sign of considerable importance and value. This presumptive diagnosis may be made even in the absence of nystagmus, bulging of the fontanelles, or reflex modifications. Indeed nystagmus is so often present in babies that for this purpose it seems to me a sign of very little significance. The appearance of any of these, or the onset of convulsions, is of course confirmatory evidence.



Types of Intracranial Hæmorrhage. (Seitz.)

FIG. 1. Intraventricular Hæmorrhages.

FIG. 2. Massive Subdural Supratentorial Hæmorrhage of the Cerebral Convexity.

For further confirmation, lumbar puncture is important, and should generally be done; but even this may fail to yield bloody fluid in the presence of considerable hæmorrhage. Whether it does so or not, probably depends on whether the hæmorrhage is confined to the convexity of the cerebral hemisphere or extends below the tentorium and along the base.

For complete confirmation, aspiration of the subdural space, through a fontanelle or suture, is of supreme value, and should be done in every suspected case, and always before any operative measure is undertaken. This procedure is advocated by Henschen,[2] its originator. It is not only of diagnostic but may be also of therapeutic value. Gilles[3] reports a case cured by "decompressive cranial puncture." The technic is simple. Care must of course be taken not to wound the dural sinuses. Over the vault of the cranium there is abundant room, especially when the subdural space is filled with blood. The needle should be inserted nearly parallel with the surface of the skull, and when entered, if blood is not immediately obtained, may be carefully swept in various directions, not, however, attempting to cross the middle line, on account of the falx. The coronal suture, at the lateral angle of the anterior fontanelle, is the most favorable point for insertion; but exploration may also advantageously be made through the lambdoid suture. If blood be found, as much may be removed as can be made to flow through the needle, depending on the degree of coagulation.

FIG. 3.

Technic of Fontanelle Puncture. (Henschen.)

If a considerable amount of blood can be withdrawn in this manner, it may be wise to wait before instituting further procedures. But if only a small amount be obtained, or if there be no improvement in the baby's condition, immediate decompressive craniotomy is indicated. Of cases thus treated, 17 have thus far been reported, 9 by Cushing[4], 1 by Seitz[5], 1 by Meara and Taylor[6], 1 by Hubbard,[7] 3 by F. T. Murphy,[8] and 2 by Simmons.[9] Of these, 7 have recovered, four of Cushing's cases, 1 of Murphy's and 2 of Simmons's. Torbert,[10] in 1909, reported two cases, both of which, however, died without operation.

The operative technic, as described by Simmons, consists of a transverse skin incision along the coronal suture. The suture itself is then opened and the dura incised, first on one side, then on the other, of the median line. If necessary, the suture incision can later be extended to make an osteoplastic flap, but often mere incision, with insertion of a rubber-tissue wick, affords sufficient drainage. Both of Simmons's cases recovered under this treatment, and it seems that perhaps others have died from the greater shock of a more extensive procedure.

That fatal intercranial hæmorrhage should result from difficult forceps delivery is not surprising; indeed the wonder is that it does not occur more often. But that it should follow easy, normal, even multiparous labor is almost incredible. Yet such is the fact, as is evidenced by the two ensuing cases:

CASE 3. Baby L. (B. L. H. 155-32. No. 17257). Female. Born January 30, 1910, after a spontaneous precipitate primiparous labor of 4 hours, 10 minutes, through a slightly justo-minor pelvis. Weight, 6 lbs. 14 oz. Baby easily resuscitated and cried vigorously. Continued well until February 4, when it had two convulsions. Physical examination showed moderate bulging of the anterior fontanelle, but was otherwise negative. A hypodermic needle was inserted into the lateral angle of the

anterior fontanelle, with the escape of a considerable amount of dark fluid blood. Baby seemed relieved and had no further convulsions. On February 5, baby was seen in consultation by Dr. F. T. Murphy, who advised and made an incision at the site of previous puncture, with further escape of two ounces of dark fluid blood. Baby's respiration and color improved after this procedure, but it died an hour later.

Post-mortem examination: At the left lateral angle of the anterior fontanelle is a two-inch incised linear wound, in which is a small rubber-tissue drain, and from which exudes a small amount of dark fluid blood. Scalp not remarkable except for slight infiltration with similar fluid. The cut above described extends through the dura. The subdural space is filled with cruor clot overlying the cerebral convolutions and extending down into the longitudinal fissure. A small amount of fluid blood wells up from the spinal canal through the foramen magnum. Cerebral sinuses intact. Brain otherwise normal in appearance, and on section shows no hæmorrhage into its ventricles or substance. Examination of trunk showed nothing abnormal.

CASE 4. Baby C. (B. L. H. 156-50. No. 17386). Male. Born March 29, 1910, after an easy, normal, multiparous labor of 16 hours, 10 minutes, through a slightly justo-major pelvis. Weight, 9 lbs. 8 oz. Easily resuscitated and cried vigorously. Appeared normal and nursed well until April 1, when it refused the breast. The temperature was 100°, the anterior fontanelle slightly prominent, but physical examination was otherwise negative. That afternoon the temperature rose to 101°, the fontanelle became more prominent, and spasmodic nystagmus developed, but there were no convulsions. The general condition remained good, but on April 2 the baby had a convulsion and died before any treatment could be instituted.

Post-mortem examination: Scalp normal. Fontanelles and sinuses normal. Subdural space contains a small amount of fluid blood, especially on the right side, increasing in quantity towards the posterior part of the brain. The right occipital lobe is largely replaced by a massive currant-jelly clot, about the size of a hen's egg, and homogeneous throughout. The source of this hæmorrhage could not be determined. The remainder of the brain was normal on section. Examination of the trunk showed nothing remarkable, except some minute punctate hæmorrhagic patches in the lungs.

The precipitate labor in the first of these cases may have been a sufficient traumatic factor to explain the hæmorrhage; but in the second there seems no adequate reason to account for it. It is noteworthy that in none of the cases of this series could the source of the bleeding be determined at autopsy. Beneke[11], [12], in 1910, expressed the belief that in the majority of instances the lesion is a laceration of the tentorium. Pott,[13] in 1911, reported 33 autopsies on the newborn, in which tentorial lacerations were found. He describes three types of tear: one in the free edge of the tentorium, one in its superior layer, and a third between the layers. He ascribes them to the tension put on the tentorium by the compression of parturition, which stretches the falx in the direction of the long axis of the skull.

Henschen,[14] in 1912, concurs with Beneke's opinion, but points out that in cases where such lesion is absent the bleeding probably comes from the rupture of veins in the pia. Bauereisen[15] reported two and later[16] nine cases of tentorial laceration. Benthin[17] reported 10 cases, and expressed his belief that in normal deliveries the lesion may be produced by too violent manual compression of the head through the perineum in the effort to save the latter from tearing. Von Herff[18] also reports a case and believes the lesion to be often of this type.

Seitz[19] believes that only in about half the cases is the intracranial hæmorrhage due to tentorial laceration. In some of the others in which the hæmorrhage is intraventricular, instead of subdural, he believes the bleeding is from the veins of the choroid plexus. Eastman[20] has reported such a case, in which there was intraventricular as well as subdural clot. In the remainder, that is in supratentorial hæmorrhages over the cerebral convexity, Seitz believes the source is from lacerations of the superior longitudinal sinus or its tributaries. He believes also that venous stasis and increased fœtal blood-pressure are important determining or predisposing elements in intracranial hæmorrhage of all types.

Finally, it is to be remembered that intracranial hæmorrhage may be merely one localization of the bleeding of *hæmorrhagica neonatorum*, as the following cases illustrate.

CASE 5. Baby B. (B. L. H. 171-176. No. 19245). Male. Born June 24, 1912 after a normal, easy multiparous labor of 13 hours. Weight 9 lbs. 8 oz. Baby easily resuscitated and cried vigorously. Apparently normal except for cephalhematoma below posterior fontanelle. Nursed well until June 28, when it began to refuse the breast and showed marked pallor. On June 29 the baby was listless and very anemic. The hematoma on the back of the head had increased to twice its original size. The pupils were dilated and did not react to light. The left knee jerk was markedly increased. Both hands in position of tetany. Twitching of eyelids and lips, but no true convulsions. On June 30, there appeared small hæmorrhagic spots on the skin under the right axilla, on the left arm and over the middle of the back. Seen in consultation by Dr. Vincent, who injected 10 c.c. of mother's blood subcutaneously into the baby. Four hours later 10 c.c. of blood were similarly injected. The baby showed no improvement, but sank into progressive coma and died on July 4.

Post-mortem examination: There were several c.c.of bloody fluid in the pericardium. Each adrenal was reduced to a single large cyst containing bloody fluid. There is over the occiput a flaccid mass, the size of half a peach, which consists of diffusely infiltrated blood-clot extending forward in the median line to the anterior fontanelle. It lies under the epicranial aponeurosis, covering the squamous portion of the occiput, and not connected with the interior of the cranium. On opening the skull, a

free subdural blood-clot was found overlying the entire right hemisphere and extending along the base into the spinal canal. Source of hæmorrhage not determined.

CASE 6. Baby Y. (B. L. H. 172-206. No. 19379.) Female. Born Aug. 22, 1912, after a precipitate multiparous labor of two hours. Weight, 7 lbs. 14½ oz. Baby easily resuscitated and cried vigorously. The mother's four previous pregnancies all terminated in miscarriage, but her Wassermann reaction was negative. The baby nursed well at first, but lost weight steadily. There was slight bleeding from the vagina a few days after birth. On Sept. 2 there was a slight hæmorrhage from the mouth, and on Sept. 3 a bright, profuse hæmorrhage from the cord. There was slight ptosis of the left eyelid, and paresis of left half of the body. Seen in consultation by Dr. Vincent. Anterior fontanelle bulging; lumbar puncture yielded 5 c.c. of blood-stained fluid. Thirty c.c. of blood were taken from the mother's vein and injected subcutaneously near the baby's scapula. There was no improvement, and the baby died on Sept. 4.

Post-mortem examination: Considerable fluid blood oozing from umbilicus, which is open and communicating with the umbilical vein, the stump of the cord being gone. There is slight oozing of bloody fluid from the mouth and nose. On reflection of the scalp, the anterior fontanelle, the sagittal and coronal sutures were seen to be dark and tense, and on incision the subdural space was found to be occupied by a diffuse layer of blood-clot, somewhat thicker on the left hemisphere than on the right, and extending completely around to the base of the skull, and down through the foramen magnum into the spinal canal. Source of hæmorrhage not determined.

It may perhaps be questioned whether the first of these two cases were really one of true hæmorrhagic disease, though it was so considered by Dr. Vincent. The second, however, was undoubtedly so. In both cases, the treatment employed by Dr. Vincent was directed toward relief of the anemia. Even had transfusion been possible, this alone would not have sufficed in the presence of so massive an intracranial effusion. In an ideal case of this type, one might first transfuse to restore the volume of blood and correct the tendency to hæmorrhage, and then aspirate or decompress to relieve the intracranial tension.

Obviously the most important measure in connection with so serious a condition as intracranial hæmorrhage is prophylaxis. In cases associated with hæmorrhagic disease this is manifestly impossible: a slight and otherwise unimportant degree of unavoidable trauma may here act as an inevitable factor in determining the location of an impending hæmorrhage. In normal deliveries one should remember not to compress the head too violently with the hand through the perineum, in the effort to save the latter from tearing. Above all one should, when possible, avoid all difficult or high forceps extractions by doing elective Cæsarean section. This of course requires rare judgment, since it is a matter of great difficulty to tell in advance how easily a given fœtal head may pass through a given pelvis. In weighing arguments for decision, however, due consideration should be taken of the much greater risk of intracranial hæmorrhage in high forceps deliveries, particularly where the fœtal life is a matter of special importance or solicitude.

Doubtless minor grades of intracranial hæmorrhage, from which the baby recovers spontaneously, often occur unrecognized. Of the possible or probable sequels of such non-fatal cases in epilepsy, spastic paralyses, imbecility, or other defects it is not practicable here to speak. In severe cases of intracranial hæmorrhage, the prognosis for life is so grave as to demand prompt recognition and efficient treatment of the condition. In all cases the prospect of complete functional recovery is so uncertain as to demand the most zealous prophylaxis.

While the above paper was in press, I had the opportunity and privilege of seeing at the Boston Lying-in Hospital and operating on the following additional case.

CASE 7. Baby K. (No. 20718.) Male. Born March 30, 1914, after a protracted multiparous labor, terminated by low forceps. Weight, 8 lbs., 6½ oz. Baby easily resuscitated and cried vigorously. It seemed healthy at first, but never took its feedings well and lost weight steadily. I first saw the baby on the morning of April 12. At that time it had a pinched, anxious, trismic expression. The arms were spastic and held in a typical position of tetany. The right knee-jerk was exaggerated, the left could not be elicited. The pupils were equally dilated; the eyes showed moderate nystagmus and were generally held directed towards the right. There was marked bulging of the anterior fontanelle. A diagnosis was made of supratentorial intracranial hæmorrhage, probably on the left side, and was confirmed by cranial puncture. Clot was obtained on the left side, and a small amount of bloody fluid on the right. That afternoon, as soon as parental consent could be obtained, the baby was operated on by Dr. Simmons's method. A small amount of clot and a considerable ooze of bloody fluid was obtained from the incision through the left fronto-parietal suture, and a small amount of similar fluid from the right side. Rubber tissue drains were placed into the subdural space on both sides, and the skin wound closed with interrupted horsehair stitches. A moist salt solution dressing and bandage were applied and the baby sent to the ward in poor condition. The bulging of the anterior fontanelle was entirely relieved by this procedure, and the pupils became contracted; but the baby continued to refuse feedings, and died in a few hours. Post-mortem examination showed a moderate supratentorial hæmorrhage, chiefly restricted to the left side, with a small amount of blood on the right side and base, which was apparently due to leakage from above. The source of the hæmorrhage could not be determined.

Though this case differs somewhat in type and duration from those above reported, it illustrates essentially the same principles of diagnosis and treatment. If the condition had

earlier become apparent, operation might possibly have been more successful.

CONCLUSIONS.

1. Intracranial hæmorrhage may occur in the newborn either from the trauma of operative or normal labor or in association with *haemorrhagica neonatorum.*

2. It often does not present the typical clinical picture of increased intracranial pressure.

3. Its presumptive diagnosis depends on early recognition of refusal to nurse, pallor, and slight facial œdema, which may be confirmed by the appearance of more classic signs.

4. Diagnosis may be positively established, and some therapeutic relief afforded, by lumbar puncture (when the hæmorrhage is infratentorial), or by cranial puncture (when the hæmorrhage is over the cerebral convexity).

5. If these measures fail to give relief, operative decompression by craniotomy is indicated.

6. The majority of intracranial hæmorrhages in the newborn are subdural, but intraventricular hæmorrhages may also occur.

7. The source of bleeding may be from laceration of the tentorium, of the choroid plexus, of the longitudinal sinus or of the pial vessels.

8. In cases associated with hæmorrhagic disease preliminary transfusion may be indicated before craniotomy.

9. The gravity of the prognosis demands an enlightened prophylaxis by avoiding all unnecessary occasion for fœtal trauma.

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SOME PRESENT PROBLEMS IN TUBERCULOSIS.*

BY P. C. BARTLETT, M.D.,

Late Superintendent Rutland State Sanatorium.

THE last report of the Boston Association for the relief and control of tuberculosis shows a constant decrease in the number of deaths from tuberculosis during the past five decades. That there has been a decrease is gratifying, but there is still a great deal of work to be done.

* Read at the sixth Massachusetts Conference on Tuberculosis, March 26, 1914.

In this paper I shall briefly discuss the following problems.

First, the number of consumptives in the state and the number of beds available.

Second, the reason for the scarcity of comparatively early diagnosis.

Third, methods to bring about the early discovery of incipient cases.

Fourth, the question of suitable occupations for arrested or partially arrested cases of tuberculosis.

Fifth, the danger of duplication of effort in the various health boards, local societies, etc.

There are at present in Massachusetts approximately ten thousand patients under treatment for tuberculosis, and there are many times this number of people with non-active tubercular foci. We have about 3000 beds in the different sanatoriums and hospitals that can be used for these patients.

There is a considerable number of these cases that do not need hospital or sanatorium care as they can be perfectly well looked after in their own homes. There is still a large number of cases that need hospital care for which we have no provision. Many of these should be taken care of in their own communities, in hospitals built for the advanced type of cases. And when such hospitals are provided one of our present problems will disappear.

There are still altogether too many patients with active disease that are not recognized as tuberculous until their disease is moderately advanced or worse. There are two causes for this delay. First, many patients do not seek advice because of lack of knowledge of their complaint. Second, patients seek advice but their physician delays making a diagnosis because of lack of knowledge of the early symptoms or because of a too hurried examination.

For the first class of cases we must continue our educational campaign and, if possible, discover new methods of bringing before the people the necessity of early diagnosis. Dr. H. L. Barnes, in a recent paper, advocated newspaper advertising to bring the matter before the people and I believe this would help.

For the second class of cases we should perfect ourselves in every way possible to make an early diagnosis and also see that the medical students are given practical instruction in this most important branch of internal medicine. In our zeal to find the early case we should not, however, make a positive diagnosis of clinical tuberculosis without sufficient evidence. There is a distinct Phthisiophobia in the community to be combated and this can only be done by education.

We must recognize the fact that a tuberculous focus has been established in the majority of children and that they will react to a tuberculin test, but show no evidence of clinical tuberculosis. The problem is to prevent them from becoming active infections and to decrease

the number that are exposed to infection in infancy and childhood. The children should be placed in the best environment possible and the cases of apparent poor physical development especially looked after, kept in open air schools or open air rooms, and live in hygienic surroundings. The sociologist says, "Provide an income sufficient to obtain good food and proper housing and there will be fewer cases of tuberculosis."

Another problem which always confronts us is to find suitable employment for the arrested or partially arrested case of the disease. Many patients do better to resume the occupations for which they have been trained rather than to take up some entirely new occupation even if their work is to some extent undesirable, provided they can live a well-regulated, hygienic life when not at work. There are some cases, however, that could be distinctly benefited if they could be trained in some light out-of-door employment or some of the less dangerous of the indoor employments. Last year the legislature of New York passed a bill allowing the municipal hospitals to establish work shops. These work shops are for the production of articles or supplies needed in the institution itself or by any other department of the municipality. This offers one method of training patients in occupations which are frequently better than the one in which they are trained and also starts them at work under the best possible conditions.

There is also a problem of duplication of effort. The local boards of health, the various tuberculous societies and various other health agencies should realize that only through the most complete co-operation can the best results be obtained. Miss Billings, who is employed by the Trustees of Hospitals for Consumptives, is at present doing valuable work in looking up discharged sanatorium cases and in securing the co-operation of the local boards of health and local societies.

Some of the problems, then, that confront the tuberculosis worker are very complex and are bound up with the problems which confront all of the workers in preventive medicine. When we realize that about 80% of all deaths are due to preventable causes, or in other words each one of those deaths is the result of ignorance or carelessness, then we realize that only by the broadest kind of education and the union of all of our sociological, educational, medical and sanitary forces can the preventable diseases be reduced to a minimum.

A Living Centenarian.—Mrs. Lydia Dow French, of Roxbury, Mass., is said to have been born on April 21, 1814, at Seabrook, N. H., and celebrated last week her supposed centennial anniversary. She is a widow and has two living daughters. Her health is excellent.

THE TUBERCULOUS CHILD.*

By Cleaveland Floyd, M.D., Boston,

Director, Out-Patient Clinic, Boston Consumptives' Hospitals Department.

Since the conception of the campaign to suppress tuberculosis was inaugurated three distinct steps have been noticeable in its development. At first the early diagnosis of pulmonary tuberculosis was considered to be the chief aim of most of the effort put forth. The second step has been the effort directed toward an adequate provision for those suffering with the disease in its advanced form, and thirdly, the child as an important factor in the problem has slowly become recognized. Not that the early detection of the disease and provision for it are any less important, but the question of tuberculosis of childhood has become more so.

The tuberculous child is of interest and importance chiefly from these aspects, namely, the source of and the manner in which infection takes place; the extent to which the children of the community are infected, and the influence of tuberculosis acquired in childhood upon later life.

Recent researches in the past ten years have shown that from five to ten per cent. of all cases are due to infection through milk, this type generally showing itself as tuberculosis of the joints, peritoneum or glands.

With the elimination of the tuberculous cow as a source of food this source of disease will be suppressed. Hess, in a striking observation made on infants, found that a few weeks' exposure to tuberculosis gave rise in most instances to the disease. Young children are not found to have as marked a degree of susceptibility as infants and with increasing years the intensity and duration of exposure to tuberculosis must be more marked to give rise to infection. The marked sensibility of the infant makes for a generalized tuberculosis. At an older period, general glandular infection is present, and only as the child moves on toward adolescence is the localized pulmonary infection predominant.

The entrance of the tubercle bacilli into the body takes place in two ways, through the digestive tract and by means of inhalation.

Experimental work on animals has clearly demonstrated that the organism may pass through the intestinal wall, gain access to the glands and reach the root of the lungs.

Lodgment of the bacillus in the tonsils may show subsequent inflammation of the glands of the neck with an extension into the chest.

But while the method of infection may occur from the use of tuberculous milk and the carrying into the mouth of material contaminated with the tubercle bacillus, laboratory and clinical findings still support the view that the great avenue of pulmonary infection is through direct

* Read at the sixth Massachusetts Conference on Tuberculosis, March 26, 1914.

inhalation. With the tubercle bacillus finding egress from the body chiefly from the air passages, with these secretions constantly thrown into the air, in a moist or dry state, and with the most susceptible part of the body open to the disease, it is but natural that the pulmonary tissue should be most often involved. The seat of the disease in the child may be the root of the lung and therefore not evident, except as it shows itself in symptoms of general debility.

The extent to which tuberculosis is prevalent among infants and children has been largely determined. Medin found that among 7000 children dying from various diseases, under one year old, 10% showed tuberculosis. This proportion rapidly increases with the increasing age of the child until at 16 years it is very probable,—as shown by laboratory and clinical methods that very few have not become infected to some degree.

The proportion of cases among children who have come in contact with active tuberculosis in the home varies from 29% to 40%. Sachs in Chicago obtained a percentage of 29. In Boston among 1000 children so exposed, 35% showed evidence of pulmonary involvement.

The effect upon the health and life of a child infected with tuberculosis may be evident in two ways: the immediate result may be a period of poor health, consisting of anemia and lack of strength, often with recovery, but with a very slow return to robust health, which is frequently never obtained. In a much smaller number of cases the lungs may be extensively involved and the child present the picture of phthisis as commonly seen in the adult.

In a great majority of cases, therefore, in early life, the tuberculous infection merely shows itself as a state of chronic ill health or general debility. With the advent of young adult life, necessitating occupation in a workshop or factory, the disease often seems to manifest itself for a second time either through the lighting up of the old process or by an added infection from outside contact. It is probable, however, in many instances where the patient in childhood has been infected and has yet grown to be a robust adult, this very early infection acts as a preventative in that the body is more resistant to a subsequent infection.

In those instances also in which a second attack of the disease occurs, the extent of its damages may be much more readily limited than would otherwise be the case.

Children who have attained adult years without having previously been infected with tuberculosis, and at this time of life are exposed to it, often seem peculiarly susceptible to its ravages. In these cases the disease seems to take the type of a general infection, often having a very malignant course, as is seen in infants. It is, therefore, probably true that some degree of immunity to tuberculosis is obtained through childhood infection, and if such children are subsequently surrounded with proper living conditions they may be well prepared to resist the disease, even if further exposed to it.

If, then, the child is ordinarily infected through direct contact with the disease in the home and the extent of tuberculosis in children so exposed is found to be a very large one, and that young adult life often succumbs to phthisis as a result of the lighting up of an early or later added infection, certain measures now more or less in general use in the effort to control tuberculosis should be re-emphasized. The susceptibility of young children even following limited periods of exposure has been so strikingly shown that measures looking towards the isolation of every active case of phthisis in a sanatorium or hospital are increasingly important.

Careful observation of all children so exposed for a period of years has proven of great value not only in the detection of the early stages of the disease but through the building up of the under-nourished and debilitated, has prevented a latent infection from becoming evident. For about five or six years the Boston Consumptives' Hospital has had a large number of children under observation who have in the first part of this period, shown tuberculosis acquired from home infection. At the present time the great majority of these children show little or nothing to indicate their former infection. Some are now young adults. I am confident that as a result of this prolonged period of care and observation they will prove to be well above the average in health in future years.

Medical inspection of school children is proving of great value, especially in arousing the interest of the parents in the health of the child. Many abnormal nose and throat conditions that lead to improper or prevent proper lung expansion are being corrected. The undernourished child is supervised and the anemic child is examined for tuberculosis. Schoolhouse infection is being eliminated and along with it a better fed, cleaner and more normal mass of school children is apparent.

Some of the best work being carried on in Boston is being done by the Provident Association, where families are taught hygienic living. This necessarily means cleanliness, proper preparation of food, and fresh air in the home. This work, therefore, is fundamental in that it aims to prevent, not only tuberculosis, but disease in general. I hope the time will come when it can be greatly extended.

The recent child labor law in this state will in time undoubtedly make for better health among children and is worthy of cordial support.

If then we surround the child who has been exposed to tuberculosis in the susceptible years of life with healthful conditions in the home, healthful conditions of study, and if we prevent its early entrance into the confinement of factory or workshop life and do this on a sufficiently large scale we have the solution of the problem of the tuberculous child in our hands.

THE SOCIAL WORKER'S EDUCATIONAL INFLUENCE IN THE COMMUNITY.*

By George B. Underwood, M.D., Gardner, Mass.

Before speaking of the educational influence of a social worker in the community, might it not be well to consider for one moment what social work really is? One authority defines social work as "the study of character under adversity and of the influences that mold it for good or ill." Another says that "it is the making the best of what sound life or character there is left, also its ideals are public health and the extermination of disease."

The campaign of the social worker in Gardner is not directed against all poverty and distress, much of which comes under the province of the Associated Charities, the District Nurse, and the Overseers of the Poor, but is a campaign of education as directed to the tubercular patient, their families, and such associates as are brought into direct or constant relation with the tubercular patient. The work naturally focuses first on an active guidance of the tubercular patient that he may make the best use of such resources as he has toward recovery; and then toward the education of his immediate family and associates with the idea of preventing the further spread of the disease.

Hence, the position of the social worker is really that of teacher, as Dr. Cabot says "one who needs all the virtues, no more and no less than the railroad man, the farmer, or the shopkeeper. But his first and chief duty to all men is to give, with such ripening sympathy and friendliness as is possible under the circumstances, the benefit of his expert skill, and so fulfill his special function in the community." Besides natural versatility and tact, the work requires a fund of experience and a professional knowledge gained from a rigorous training.

Her experience and training must be varied, for the sympathetic nature which is absolutely essential, must be supplemented with a practical business training. In one family she has to teach the wage earner to plan the expenditure of his small income in such a way that necessities may be provided for his family, and again a mother must be taught the art of cooking to tempt the appetite of the patient; others need direction in the methods of housekeeping so that the patient may be surrounded by as sanitary and comfortable conditions as possible.

She must have a wide acquaintance with the business men and people of wealth in the community whose confidence she must have gained—business men, because of the dependence upon them in securing employment for those who need suitable work, and people of wealth, because of their assistance in supplying funds, with which to buy necessities and comforts for the destitute. Constant vigilance and oversight is the keynote of the work.

One not familiar with the work, would hardly appreciate the far reaching influence of the social worker. Her frequent visits to a home bring her in contact with the well members of the family whom she interests in the condition of the patient, and who thus become educated in methods of prevention of diseases as well as methods of treatment. In her numerous visits to the home she may find another member of the family in a state of malnutrition, anemia, or debility. She sends the person to the clinic or family physician for examination. No definite signs of tuberculosis are found, but with a little treatment to build him up and increase his resistance the patient is rendered less liable to the contraction and development of phthisis. This work the Association believes to be of great value.

To illustrate more vividly the influence of the social worker, let us picture an ordinary working man from thirty to forty-five years of age, who feels the full responsibility of a family from four to seven, dependent for their sustenance upon his daily work. For some time this man has felt tired, and some nights completely played out, has been subject to frequent colds, as he thinks, naturally attended with more or less cough.

Let us now imagine this man in the office of a good physician, who has been sufficiently interested in his case to have made one or more careful examinations and to have learned personal history, and who, although he has been reasonably certain of his diagnosis of tuberculosis, has just found a positive sputum.

The physician, knowing the poor home conditions and that at the present time, only a small proportion of tubercular cases can be treated at our state sanatoria, is fortunate to have at his command an efficient social worker to see that his instructions and treatment are properly followed.

The physician explains with confidence to the disheartened man that the social worker will prove an important factor in his recovery; that she will teach him not only what he can do to be of the greatest benefit to himself, but also how to avoid being a source of contagion to other members of the family, for although the physician prescribes, it is the social worker who carries out the detail of management.

The next day the social worker, having been asked by the physician to visit the patient, finds the unfortunate man thoroughly discouraged and helpless. The grief that he feels for his needy family, and the hopeless outlook into the future render him an abject figure.

The social worker enters, and on her first visit establishes a bond of sympathy and confidence. She talks with him about the instruc-

* Read at the sixth Massachusetts Conference on Tuberculosis, March 26, 1914.

tions of the physician, the necessary rest, the exercise, his food, the care of sputum, the absolute necessity of plenty of fresh air, open windows, sitting out of doors, etc., much of which seemed impossible to him as he sat in the doctor's office and thought of the lack of warm clothing and other means with which to carry out these instructions.

The social worker assures him that she can easily obtain a chair for him and plenty of warm clothing; she knows women ready and glad to sew and provide clothing for his children. So the cloud begins to lift. The confidence which the social worker inspires, arouses hope, and with new encouragement, the patient is better able to begin his battle.

It is usually at this stage that the patient with tuberculosis is the hardest to control. Oftentimes not feeling very sick, in the ordinary understanding of the term, he is inclined to wander. It is now that the frequent visits of the social worker are of greatest importance. She must be alert, earnest, convincing, and ready to correct repeated doubts the patient may have in relation to his treatment. It is now that she strengthens faith in his physician and prevents his going about from doctor to doctor in search of immediate cure.

A person but slightly ill is sometimes somewhat feeble-minded and suffers from tricks of memory with regard to the instructions and advice of the physician. In this case the patient needs constant supervision and instruction, which the physician is unable to give, but which the social worker can supply.

As I have said before, it is the incipient case which benefits most from the supervision of the social worker. A person acutely sick usually suffers pain or some distress which urges him to seek help as soon as possible. The incipient case of tuberculosis does not feel this urgent demand for relief. He may have more or less cough, suffer loss of weight and appetite, and have the sensation of general loss of strength and debility, but with proper treatment, have very little to complain about.

It is in such a situation that the patience of the social worker is taxed, for she must visit the patient frequently, see that every detail of treatment is properly carried out, and continually encourage, so that he will make the necessary effort to secure a permanent result.

Now when the patient is told and fully realizes that he has tuberculosis, his mental attitude toward the whole situation may be likened to the young man going into battle for the first time. He would run away from the enemy were it not for the watchful eye and moral support of his commanding officer. Just so does the continual moral support of the social worker bring back the confidence, and add new courage to successfully arrest and overcome the disease.

The work of the social worker, viewed from the economic standpoint rather than the humanitarian, is of great benefit to the state. If it were not for her supervision of patients returned from sanatoria, the large amounts of money expended in sanatorium treatment would in many cases be practically wasted, for it is a recognized fact that unless followed up, many patients would not continue the necessary treatment at home, and were it not for the constant vigilance and supervision of the social worker a recurrence of the disease would be sure to result. Hence, the sum expended in the treatment of the patient at the sanatorium might prove to be a loss to the state, for the patient again may soon return to his former condition.

In all this work vain indeed would be the efforts of the social worker, if she had not an advisor in the person of a good physician who is entirely in sympathy with her work, understands her needs, and is ever ready to counsel and help her in the many perplexities which are sure to arise. Without this co-operation, failure must follow where success would otherwise be attained.

Some may question—Why bother with this home treatment when out state supports institutions so well equipped for the express purpose of caring for patients? Why incur the expense of salary of a social worker and maintenance of a dispensary? The social worker watches carefully those patients who have returned from sanatoria and sends them to the dispensary or their own private doctor for examination, especially when they are taking up their work again. She follows carefully those who are waiting to go to sanatoria, and if the waiting seems long encourages them to be patient, and in the meanwhile helps them at home as much as possible.

There is a certain class of patients who do better under careful supervision at home. These cases are usually in those persons who suffer from homesickness. Take for instance a homesick person often depressed because of his condition and place him in a sanatorium where there are others afflicted as he is, and he is overcome with a sense of loneliness and homesickness. This class of cases needs the sympathy and encouragement of relatives and friends. When the patient returns from a sanatorium, he finds that the arrangement of his time has to be planned on a new basis. In adjusting himself to this new regime, the advice and moral support of the social worker is indispensable.

In Gardner, an anti-tuberculosis dispensary was established in 1909. This was earnestly and actively opposed by the physicians of the town, who in common with doctors throughout the state, at that time did not appreciate the importance of the diagnosis of incipient cases.

In 1910, the local social worker began her duties, and she was instructed to call on the physicians and see if she could help them in any tubercular case they happened to have under

observation. This plan worked so well that within a few months the physicians, seeing that the dispensary did not detract work from their offices, showed an entirely different attitude: opposition ceased, new interest was aroused, and confidence and co-operation followed. This is evident from the fact that during the first three months after the social worker commenced her duties, and the dispensary was moved to the Board of Health office, forty new cases were reported.

Since its establishment, seventy-three cases have been sent to sanatoria, seventeen of whom have died, four of these having died of other diseases than tuberculosis. Of the remainder forty-seven are working full time; eight, part of the time; and one is unable to work at all. Since 1908, 232 cases have been reported. Most of these the social worker calls upon in the interest of the attending physician or the dispensary.

Not wishing to detract from the benefits derived from sanatoria or local hospital, we wish to emphasize the effort to put more efficient social workers throughout every community in the state. We feel that as much effort should be made to put as many social workers in the field as is put into building new sanatoria, as they both are essential in the management and care of the tubercular patient.

The social worker does much to correct the mistaken ideas of the public, who sometimes practically ostracize the tubercular patient. The social worker should strive to accomplish her ends by tact, constant attention, and friendliness, rather than by making her directions compulsory and thereby creating a feeling of antagonism to her work.

That the social worker is a most important influence in a community cannot be denied, and that her influence is educational is recognized, for as Dr. Cabot says, "The contagion of disease must be opposed by a contagion of intelligence."

THE FIELD OF WORK OF THE ANTI-TUBERCULOSIS ASSOCIATION.*

BY SEYMOUR H. STONE, BOSTON,

Secretary, Boston Association for the Relief and Control of Tuberculosis.

THE STATE PROBLEM.

What is the tuberculosis problem in Massachusetts? Briefly stated there are about 5,000 deaths annually, and a State Commission on Tuberculosis has estimated that there are between 35,000 and 40,000 persons suffering with the disease.

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THE STATE PLAN FOR HANDLING THE PROBLEM.

The State has developed a well-defined policy for fighting the disease which may be summarized as follows:

1. It has established four (4) State sanatoria, to be used mainly for patients in the incipient or curable stages of tuberculosis.

2. A law was passed in 1911, and amended in 1912, providing that cities shall, and towns may, build hospitals for the care of persons having tuberculosis. It is proposed that these hospitals shall care for patients in advanced stages of the disease. Experience has proved that while persons with the disease in the early or curable form are willing to remain at the State hospitals, those suffering from an advanced form prefer, as is natural, to be near home and friends, and can only be adequately reached and provided for in local institutions.

3. At the same time another law was passed requiring the State to assist these cities and towns in the maintenance of their hospitals by paying them $5.00 per week per patient, provided such patients are indigent and have tuberculosis germs in their sputum.

4. To complete this plan a law was passed which requires cities and towns of 10,000 inhabitants or over to maintain tuberculosis dispensaries for the discovery, treatment, and supervision of needy persons afflicted with tuberculosis.

WHOSE JOB IS IT TO PROVIDE FOR THE TUBERCULAR?

This program, if carried out, will undoubtedly provide for most of those sufferers from the disease who need care. It means the expenditure of large sums of money, and this in turn means appropriations, raised by taxation; for the cost of maintenance of State, and particularly municipal tuberculosis work, is rapidly increasing.

A bulletin issued recently by the National Association for the Study and Prevention of Tuberculosis shows that nearly $20,000,000 was spent last year in the treatment and prevention of tuberculosis in the United States. This fact clearly indicates that the duty of caring for the tubercular is too great a one for private enterprise, and should therefore be assumed by the State and the municipalities, and paid for by taxation. That this policy is gaining headway is shown in this same bulletin which states that 69.3 per cent. of the above sum of $20,000,000 was derived from public funds, either federal, state, county, or municipal, as against a record of 53.5 per cent. in 1909.

THE STATE'S EQUIPMENT.

Massachusetts maintains at public expense:

1. Four State sanatoria under the Trustees of Hospitals for Consumptives.

2. A hospital for indigent men and one for

indigent women at the State Infirmary, Tewksbury.

3. Thirteen municipal hospitals.
4. Fifteen municipal dispensaries.
5. A prison hospital for tubercular prisoners.
6. And special provision for the tubercular insane at twelve asylums.

PRIVATE INSTITUTIONS.

This State program, however, does not mean that there is no place for the private institution. While a large majority of persons afflicted with tuberculosis are poor or of very moderate means, often with others dependent upon them, there are, of course, many who are amply able to pay for the care and treatment received. For this type of case the private institution is the proper place. There are several hospitals and sanatoria specially endowed for this purpose, and excellent institutions already well established, that should by all means be continued and supported.

THE FIELD FOR THE ANTI-TUBERCULOSIS ASSOCIATION.

In view of the above facts what work remains for an Anti-Tuberculosis Association? It is evident that it:—

1. Should not *permanently* maintain a hospital.
2. Should not *permanently* maintain a dispensary.
3. Shoud not *permanently* maintain a visiting nurse or nurses.

It seems to me, however, not only legitimate but very desirable that an Association should carry on experimental work of this sort to demonstrate a need and should then turn it over permanently to the municipality. The longer the Anti-Tuberculosis Association carries on these enterprises the longer the legitmate duty of the municipality is neglected and the proper work of the Association deferred. If it is impossible to induce a municipality to take over a necessary piece of work, I believe that an Anti-Tuberculosis Association should find some other way of passing on the enterprise. If this is not done the energy of the Association is invariably diverted from its own peculiar and important field of work.

THE PROPER WORK FOR AN ANTI-TUBERCULOSIS ASSOCIATION.

An Anti-Tuberculosis Association should, in my estimation, direct its energy along preventive lines of work; that is, in the direction of investigation, education, experiments and legislation.

INVESTIGATION.

Under the head of investigation it can make a study of local conditions, ascertaining the amount of tuberculosis in a given community, determining whether there is proper equipment to provide for it, and proposing a complete program for the suitable handling of the problem.

EDUCATION.

The object of the educational work should be to instruct people how to guard against contracting the disease, to give information about early symptoms, and what to do to protect others from infection. This can be carried out by free lectures in churches, lodges, labor unions, clubs and theatres; also by the distribution at lectures, schools and clubs of literature dealing with preventive measures, health rules, the value of fresh air, and sleeping-out devices. Exhibits of various sorts may be used to advantage but probably the most useful type is the small portable exhibit that can be shown in schoolrooms and churches, and set up in libraries, settlements, clubs, and even in the waiting rooms of hospitals clinics and stations. The newspapers will be found to be a willing and very useful ally in an educational campaign if material is prepared in a newsy form. Too much credit cannot be given the newspapers for all that they have done to assist in the fight against tuberculosis. Nor must it be forgotten that the sale of the Red Cross Christmas Seal has a certain amount of educational value.

EXPERIMENTAL.

As has already been suggested, experimental work, to demonstrate the need of a hospital, a dispensary, a visiting nurse, a day camp or an open air school, may be carried on by an Anti-Tuberculosis Association to the very great advantage of a community. When a real need of this sort is pointed out in a practical way to a progressive city or town, the public authorities are not slow in taking over and establishing the work on a permanent basis.

LEGISLATION.

Interest in legislation is an important function of an Anti-Tuberculosis Association. If the Association is not near the State Capital it is possible for it to be kept informed of the activities at the State House by some organization that is in close touch with the legislative machinery. Such an organization we have had to a certain degree in the Boston Association, and now with the formation of a Massachusetts Anti-Tuberculosis League we hope that distant Associations may be kept even more closely informed about legislation.

After being apprised of what is before the legislature an active Association may do good work by carefully studying the measures, applying them in theory to its own community, and then bringing pressure to bear on the local legislative representative to aid in enacting or defeating them. If it is possible to unite all the Associations for or against a given measure the pressure will be very effective.

An Anti-Tuberculosis Association can be even more effective by insisting on the enforcement of local or municipal laws, such, for instance, as those requiring physicians to register all cases of tuberculosis, obliging cities to build and maintain tuberculosis hospitals and dispensaries, and forbidding spitting in public places. It is also possible for an Association to do good work along the line of urging ample appropriations for the maintenance of municipal hospitals, dispensaries, nurses, open air schools and the Health Department.

COÖPERATION.

One of the most important things for an Association to cultivate is hearty coöperation with the health authorities, relief agencies, and the various civic bodies. It should always bear in mind that each of these agencies is necessarily looking at the tuberculosis problem from a different point of view, which, while it may not coincide with the point of view of the Association, is nevertheless worthy of the most thoughtful consideration. Toleration is a valuable characteristic and the Association that possessess it will find it comparatively easy to coöperate with others.

New Instruments.

HOME-MADE PROBES.

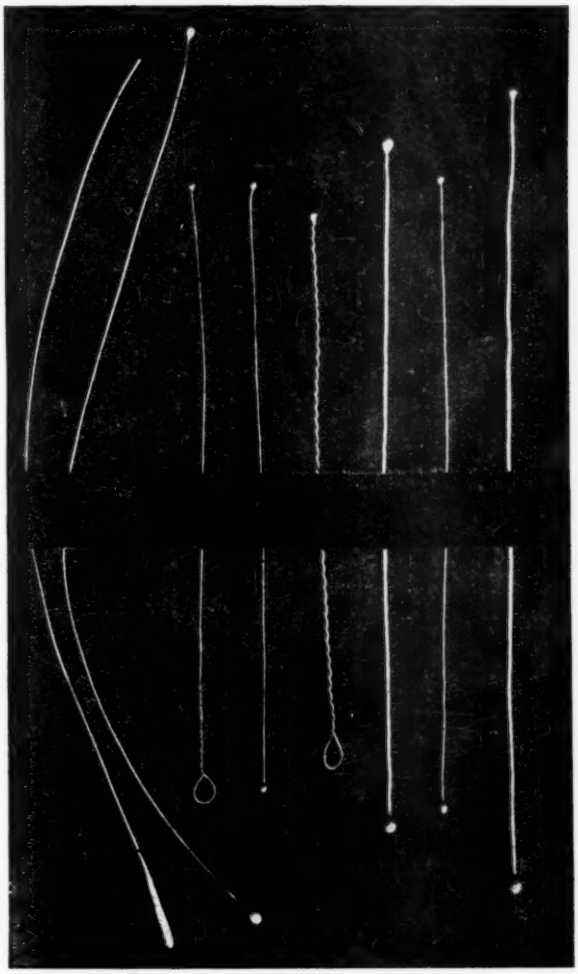
BY ERNEST BOYEN YOUNG, M.D., BOSTON,

Junior Visiting Physician for Diseases of Women, Boston City Hospital; Assistant in Gynecology, Harvard Medical School.

Probes are always becoming lost or mislaid, and it is often impossible to procure one of suitable size, length or pliability for special explorations, or in some emergency.

If of a size pliable enough to follow a delicate sinus, the tips are apt to be so small as to engage in any slight irregularity of the passage, and so mislead as to its extent. Furthermore, the material is often so stiff that the probe refuses to follow the tortuous course in friable tissue, and a false passage is the result.

In an emergency a very serviceable probe for small sinuses may be made by tipping a strand of silkworm gut with a drop of paraffin, or by wrapping one end with a wisp of cotton and then dipping one or twice in collodion. When paraffin is used, the end of the gut should be scorched in the flame, which roughens it and makes the paraffin bead secure. Metal probes are naturally more satisfactory, and the writer having found it necessary, in several cases, to employ probes of greater length and flexibility than could be bought, has manufactured them for his own use by a method so simple, that it may be generally useful. In the making, it is possible to vary the size of the beaded tip, according to the caliber of the sinus, so that a very flexible fine probe may be armed with a tip nearly as large as those on the heavy probes sold by the instrument makers, thus providing a flexible probe and at the same time minimizing the danger of the tip engaging or creating a false passage.



1. Silk worm gut tipped with cotton.
2. Same tipped with paraffin.
3. Silver wire with borax bead.
4. Copper wire probe.
5 and 6. Silver wire.

Silver or copper wires of suitable size, are most useful although silver is the better; as the smaller silver wires are easily fused in the common alcohol flame, while larger copper wire always requires the flame of a Bunsen burner. The copper wire also oxidizes and may become rough, while the silver wire comes from the flame bright and ready for use. However, any roughness is easily removed by a piece of fine emery paper, sand paper, or a whetstone, while the roughness of the copper may be obviated by dipping the hot wire in

powdered borax, and again heating in the flame. The borax bead of the chemical laboratory also makes an excellent tip.

Under all circumstances, a Bunsen flame is preferable, as the greater heat gives a smoother bead, but for smaller wire the alcohol flame is sufficient.

Larger probes may be made by twisting together strands of smaller wire, and then forming a bead on one extremity. A loop may also be left on the folded end for the insertion of a strand of silk or other material which it may be desired to introduce into the sinus, or as a guide to indicate the direction of the passage.

Probes made in this manner are also useful in "stirring up" indolent granulations; the twists of the wire acting as a mild curet when pushed back and forth.

The wire should be held upright in the flame until a sufficient bead has collected. A few trials enable one to estimate the size of bead which a given wire will hold, as if allowed to become too large, the melted metal will drop from the wire.

The photograph shows various probes made by the methods described.

Reports of Societies.

THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Meeting of Wednesday, March 4, 1914 at 8 P. M. The President, Dr. James C. Wilson, in the chair.

THREE CASES OF WIRING WITH ELECTROLYSIS FOR AORTIC ANEURYSM. ONE HERETOFORE IN PART REPORTED.

DR. H. A. HARE: Three additional cases of wiring with electrolysis for aneurysm of the thoracic aorta are reported and a patient exhibited illustrating the beneficial effects of this procedure more than four years after the first operation and more than two years after his second wiring which was resorted to because he had a return of very severe pain and a marked bulging near the site of the original sac. The great gain is arrest of the lesion and relief of pain.

To my conclusions in an article published by me in the *Journal of the American Medical Association* of April 13, 1912, I would now add that after having performed this operation twenty-five times I can see no reason for changing the views then expressed. I desire, however, to emphasize once more the fact that only especially prepared wire can be used and that silver wire, because it does not coil, is an unsuitable agent.

DISCUSSION.

DR. GEORGE W. NORRIS: I should like to ask Dr. Hare whether the wire introduced into an aneurysm is ever absorbed? I have an impression that in one case of which I have knowledge no wire was found at autopsy.

DR. THOMAS MCCRAE: I agree with Dr. Hare regarding the absence of danger in wiring, if properly done. Regarding the curious course taken by the wire, I have a specimen in which two loops passed through the aortic orifice and down to the lower end of the ventricle. I have seen one case of anatomical cure of abdominal aneurysm after wiring. The patient died from a second aneurysm which was also wired but without the result of the first occasion. I would ask Dr. Hare whether he has any theory upon the relief of pain by the wiring and electrolysis. The question is certainly not one of coagulation.

DR. JAMES TYSON: On March 27, 1911, I presented to the Section on Medicine of the College an aneurysm which had been twice wired in my wards at the University Hospital, wherein, too, one piece of wire had passed through the aortic orifice down into the apex of the ventricle by two loops.

DR. ROBERT N. WILLSON, JR.: Dr. Hare has encouraged me to mention the unfavorable results of a series of wirings done by us at the Philadelphia Hospital. Of six large aneurysmal sacs four were thoracic; two, abdominal. Five of the patients died within three days after wiring. In all cases the procedure was carried out practically as outlined by Dr. Hare. All showed marked relief from pain immediately following operation. One of the patients went back to work and lived for several months. Not one was benefited permanently. While there was immediate relief from pain, almost without exception, the wiring seemed active in hastening the end. During fourteen years I have seen many times for a colleague a patient with a large slowly growing aneurysm under the upper piece of the sternum, and who during this entire time has been living with reasonable comfort.

DR. HARE, closing: Answering the inquiry whether or not the wire is at times absorbed I would say that it is. I have known of one other case already reported in which at autopsy no wire could be found. I do not know whether, finding a tiny point of the wire protruding, the man had for amusement, pulled it out; or, it had undergone some process of absorption. I am inclined to thing that in some cases the wire may have been partly destroyed by the electrolytic process, particularly, if by any mishap, the negative instead of the positive pole were used. The most notable effect in my series of 25 cases of wiring is the relief of pain. The wire used must have temper so that if handled it will spring into the air. I do not see how coagulation can fail to occur if there has been no mistake in the use of the poles. I attribute the relief from pain to the sedative influence of the galvanic current (although I have not much confidence in electro-therapeutics), and to the removal of the strain upon the sac by the clotting. In cases unimproved or in which there is recurrence of pain it is often found that there is more than one aneurysm. The question at issue is whether we shall operate, or allow a man to live in pain. Of course there must be care in the selection of cases. In two cases seen within the last two months operation would have been unjustifiable. In one the sac was filled with a laminated clot. In the other case there was a history of pain and bulging in the third inter-

space to the right. There was present a small expansile mass. There was so much breath sound around the growth that I questioned whether insertion of the needle was possible without puncture of the lung. On the other hand, in some of the more desperate cases, the aneurysmal sac has been black and blue. In one such case the patient was wired in May and later was wired in two places at one sitting, and died from rupture of another sac than the one wired.

THE UNDERLYING FACTORS IN THE SPREAD OF TUBERCULOSIS.

DR. ALBERT PHILIP FRANCINE: In placing the responsibility for the spread of infection we must in the last analysis begin with the individual. The first remedial step is education among the poor and ignorant; the second, improvement of physical conditions of living. Next in importance in this relation is the subject of conditions of labor. The problem of tuberculosis is in a large sense a social and economic one. It is not alone strictly anti-tuberculosis measures which may be confidently looked to for results, but to all the associated movements for the public welfare in health, morals and conditions. Two great medical factors in the communicability of tuberculosis stand out *i. e.*, source of infection and age of infection. The great source of the infection lies in the carelessness of the individual consumptive, and childhood is the age at which infection occurs. Healthy adults have a very considerable resistance or immunity to tuberculosis, but in proportion to bad environment is this immunity impaired. Infection in childhood, as a rule, lies dormant until adult life. It is largely children infected by contact in their homes who furnish later the ever on-commg crop of consumptives. Infection may also be due to tuberculous milk and meat, and the direct transmission of the tubercle bacillus may take place from mother to fetus by placental circulation. Authoritative opinions differ upon the cause of the decreased death rate from tuberculosis in urban populations. Newsholme concludes that this decrease is due to the institutional treatment of the sick of our cities, and particularly the tuberculous sick. Karl Pearson denies the value of our general campaign, and says that the only efficient source of prevention lies in developing communal or race immunity. The maintenance of racial and communal resistance is important and points to the necessity by good food, rest and recreation, airy schools, playgrounds, inspection and supervision for raising this resistance, particularly in childhood and early adult life. When we consider as essentially one the social and economic, and the more strictly medical, conditions, responsible for tuberculosis, the point is brought forcibly upon us that it is by the combination of our anti-tuberculosis campaign and all allied movements toward improvement of health, morals and conditions of the people that we may expect to control this disease. As Folks well says, "If our task is the more difficult because it is bound up with every phase of modern civilization, it is equally true that every substantial advance in other lines assists our cause."

DISCUSSION.

DR. JAMES TYSON: Dr. Francine has well stated the grounds on which is based the spread of tuberculosis. I should like to ask him whether there is any reason to believe that the ascendancy in the struggle against tuberculosis which is being claimed has been at all reversed? My question is prompted in part by a statement in the lay press (from which, however, it is not always safe to quote) that in France the mortality from tuberculosis had doubled in the last twenty-seven years.

DR. FRANCINE, closing: I have to say, Mr. President, in reply to Dr. Tyson's question, that there is not the slightest possible doubt that the figures for the mortality in relation to the incidence of tuberculosis have diminished enormously. There is confusion from the fact that apparently the morbidity is greater because we are reporting all cases today. The information is before the people in a way never reached before and the mortality is certainly diminishing all along the line.

THE INCIDENCE OF FIBRINOUS AND BRONCHOCATARRHAL PNEUMONIA IN THE PHILADELPHIA GENERAL HOSPITAL.

DR. ROBERT N. WILLSON, JR.: Considerable interest and an occasional good natured difference of opinion have existed during the past eighteen months as the result of the determination of one of the medical services in the Philadelphia General Hospital to discriminate sharply between the fibrinous and the bronchocatarrhal types of pneumonia, especially with a view to treating patients suffering from the one condition in cold; and, from the other, in warm fresh air. There should be a clear cut discrimination between the two clinical types of pneumonia. There is a doubt whether there ever has been, or ever will be, a truly asthenic, vitally vigorous, sufferer from bronchocatarrhal pneumonia. Let us keep those patients indoors who are not able to establish a temperature reaction or a considerable leukocytosis as indications of their attempt to outride the storm that has beset them. Wash and warm, and even re-wash, their breathing air a sufficient number of times to render it cleaner and fresher than outdoor air. Send outdoors only such febrile pneumonies as crave the cold and obtain a stimulus and a relief in and from it. Send even these back into the warmth when the crisis occurs, or when, for any reason, they are distressed by the low temperature.

Book Reviews.

The Cancer Problem. A Statistical Study. By C. E. GREEN, F.R.S.E. Third edition. Edinburgh and London: William Green and Sons. 1914.

The first edition of this interesting monograph was reviewed in the issue of the JOURNAL for May 18, 1911 (Vol. clxiv, p. 723). In this third edition, the text has been considerably rewritten and expanded from 90 to 98 pages by the addition of new data, statistics and other material. There have also been added several new plates, figures, maps and diagrams, and a col-

ored frontispiece; but the volume has been unfortunately curtailed by the omission of its excellent index. The plan of the work remains unchanged. The progress of cancer research during the past three years, especially the work of Mr. Erwin Smith on plant cancer, has on the whole tended to confirm the plausibility of Mr. Green's theory. His position remains as yet, of course, quite hypothetical, yet may well some day be deductively and experimentally proved correct.

Infections of the Hand. By ALLEN B. KANAVEL, M.D. Second edition, thoroughly revised. Philadelphia and New York: Lea and Febiger. 1914.

The first edition of this book was reviewed in the issue of the JOURNAL for May 16, 1912 (Vol. clxvi, p. 743). As indicated in its sub-title, it is "a guide to the surgical treatment of acute and chronic suppurative processes in the fingers, hand, and forearm." In this second edition, the author has made certain additions in regard to chronic processes, has introduced a clearer system of cross-references and has inserted *resumés* at the end of several of the chapters. The number of illustrative engravings is increased from 133 to 147. The total number of pages is increased from 447 to 463. The work should retain its position as an authoritative monograph on the important subject of manual infections.

Sanitary Statistics of the Navy for the Years 1909-1910. Rome: Italian Polygraphic Office. 1913.

This belated biennial report of the chief inspector of health to the Italian minister of marine records the health statistics of the navy for 1909 and 10. It follows the system of the preceding report (reviewed in the issue of the JOURNAL for Apr. 11, 1912 (p. 566) with certain changes in the nosologic tables to keep pace with the progress of medical science. It completes a decennium of statistics. In the succeeding decennium, it is purposed to adopt other simplifications and modifications, not so much in the classification of diseases, as in the number and system of columns. As it stands, the volume presents an immense mass of tabulated data, with a small amount of interpretative text, which should be of undoubted value and interest to those concerned in such subjects.

Dental Diseases in Relation to Public Health. By J. SIM WALLACE D.Sc., M.D., L.D.S. London: The Dental Record. 1914.

This volume consists of three communications made by the author at medical meetings. The first, which comprises over three-fourths of the pages, and from which the book takes its title, was an address before the recent Seventeenth International Medical Congress at London. The second deals with "the physiology of oral hygiene," and was the opening of a discussion on dental hygiene in infancy and childhood, before the Royal Sanitary Institute at Exeter. The third, on "children and dental disease," was presented before the British Medical Association. They indicate well the status and problems of popular education in dental and oral hygiene in England, and therefore should be of special interest to those concerned with similar problems in the United States.

Cunningham's Text-Book of Anatomy. Edited by ARTHUR ROBINSON, M.D., F.R.C.S., Ed. professor of anatomy, University of Edinburgh. Fourth edition, enlarged and rewritten. pp. xxv—1596. New York: William Wood and Company. 1913.

This fourth edition of Cunningham's Anatomy has undergone special revision because of the deaths of Professor Cunningham, Professor Birmingham and Professor A. H. Young. The articles which these men have written for previous editions have been revised and in part rewritten by others. In general, however, the book maintains the appearance of the editions which have gone before. The editor has accepted completely the Basle anatomical nomenclature except in certain instances where the new terms have been unsatisfactory. This text-book remains one of the best composite volumes on the subject of general anatomy. The separate sections are written by men of recognized distinction in their various fields, and the occasional overlapping by the various writers is not to be regarded as a detriment except when insofar as it increases somewhat the size of an already ponderous volume. The illustrations are admirable and printed exclusively in the text. We highly commend this edition as we have its predecessors as one of the relatively few standard books of its type. The work of the American publisher is entirely satisfactory.

A Manual of Medical Treatment or *Clinical Therapeutics.* By I. BURNEY YEO, M.D., F.R.C.P. Fifth edition by RAYMOND CRAWFORD, M.A., M.D., Oxon., F.R.C.P., and E. FARQUHAR BUZZARD, M.D., Oxon, F.R.C.P. In two volumes. William Wood and Company. 1913.

The fifth edition of this manual, which comes in two volumes of eight hundred pages, compressed, however, into a convenient size, will appeal to those physicians who wish to look up the conservative treatment of disease. Many complicated prescriptions are included.

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THE ANTI-VACCINATION BILL.

OPPOSITION to vaccination arose just as soon as Jenner told the world "duly and efficiently performed it will protect the constitution from subsequent attacks of smallpox as much as that disease itself will. I have never expected that it would do more and it will not, I believe, do less." Cartoonists seized upon the subject in the early days of vaccination, and many sermons were preached against the practice. It is curious that from the beginning most of those who opposed vaccination refused to study its effects at first hand, but based their opinion upon theoretical, sentimental, or religious grounds. Many a detractor wanted to make the fate of vaccination hang upon a single case of smallpox. Jenner never claimed vaccination to be an infallible prevention, and always took care to emphasize the fact that has been demonstrated over and over again during the past hundred years, that vaccination protects against smallpox in the same way that smallpox protects against smallpox. Some people have smallpox two, three, and four times. Jenner mentions, "The lady of Mr. Guinnett, who has had the smallpox five times. . . ."

We now know perfectly well that the effects of vaccination wear off in time, and that persons should be re-vaccinated in order that the protection may be renewed. Persons successfully vaccinated on two occasions are usually immune from smallpox for life. Vaccination and re-vaccination, systematically and generally carried out, confer complete protection to a community or a nation. In other words, while the individual protection is not always perfect, the communal protection is absolute.

Thomas Jefferson, in 1806, wrote to Jenner saying, "Future nations will know by history only that the loathsome smallpox has existed, and by you has been extirpated." This prophecy has not been fulfilled, though eminently possible. Germany has taught the world how to utilize Jenner's great demonstration. On April 8, 1874, Germany passed a general compulsory vaccination and re-vaccination law. This law requires the vaccination of all infants before the expiration of the first year of life, and a second vaccination at the age of twelve. Since this law went into effect there have been no outbreaks of smallpox in Germany; in fact, the disease has practically been abolished from that great nation.

Those who have practical experience with smallpox soon learn that persons who have been well vaccinated do not contract the disease, while those who have not been vaccinated almost invariably do so if exposed. The most convincing demonstration is to visit a smallpox hospital, where doctors, nurses, ward-tenders, and others who come in frequent and intimate contact with many cases of smallpox, never contract the disease.

One of the most convincing demonstrations concerning the efficiency of vaccination was made in Boston on August 16, 1802, when nineteen boys were vaccinated with the cow-pox. On November 9 twelve of them were inoculated with smallpox; nothing followed. A control experiment was made by inoculating two unvaccinated boys with the same smallpox virus; both took the disease. The nineteen children of August 16 were again unsuccessfully inoculated with fresh virus from these two boys. This is one of the most crucial experiments in the history of vaccination, and fully justified the conclusions of the Board of Health—*cow-pox is a complete security against the smallpox.*

The splendid results recently obtained in the Philippines are a modern demonstration of the practical results of vaccination.

Much fuss has been made concerning the dangers of vaccination. The alleged dangers have been greatly magnified. The chief danger lies in the fact that an open wound is produced which is subject to the complications of any wound. Even a pin prick or a razor scratch may result in death. When the aggregate number of acci-

dents resulting from the complications of vaccination are considered, the total is so small that the individual risk may be disregarded. Furthermore, the methods of vaccination have been greatly improved during the past decade, and the quality of the vaccine virus furnished through government inspection and control, in accordance with the law of July 1, 1902, is a safeguard which ensures a pure and potent vaccine virus.

John Ring was an active protagonist of the cause of vaccination, and was accustomed to answer antivaccination arguments with a vigorous pen. On one occasion Jenner wrote to John Ring as follows, "Your satires against the antivaccinationists are keen, but the keenest of all are those which are engraved with the point of your lancet."

THE ALIEN INSANE IN THE CIVIL HOSPITALS OF NEW YORK STATE.

DR. SPENCER L. DAWES of Albany, appointed by Governor Dix special commissioner to make an investigation on this subject, in order to ascertain existing conditions and their causes, and suggest remedies therefor, has submitted to Governor Glynn an elaborate report of his studies. These were based upon: (1) public hearings at the state hospitals for the care of the insane; (2) public hearings in Albany and New York, at which were examined hospital superintendents, representatives of charitable institutions, of steamship companies, and of foreign governments, the chief examiner of the Bureau of Deportation and his assistants, and private citizens; (3) statistics of the nativity and citizenship of every patient in the state hospitals, obtained from a special census taken September 30, 1912.

The investigation covered a large number of topics, among which were, provision for cost and maintenance of the insane in the state, increase of insane patients in the state hospitals compared with increase in general population, nativity and parentage of the insane in New York State and the United States, time of aliens in this country before admission to state hospitals, cost of caring for the alien insane, eugenic effects, and attitudes of other states. As to the matter of eugenics, it is stated that the long-standing belief in the popular mind of the association of insanity with heredity has been confirmed by modern investigation, so far, at least, as to establish the point that heredity is by far the most important single factor in the causation of certain forms of mental disease. To ancestors afflicted with feeble-mindedness, dementia precox, and other mental disorders, numerous mentally defective or mentally diseased descendants have been traced in many of the families which have been investigated, while in a few of the cases examined, where one party to the marriage was normal (and presumably of normal ancestry), the other being insane, some normal children resulted. The result of investigations into heredity down to the present time entirely justifies the statement that it is highly undesirable that the feeble-minded, epileptics and those with certain types of insanity should have children. The opinion is therefore expressed that mental defectives, the insane, and those particularly likely to become insane, who are so undesirable as parents of future generations of Americans, should be excluded, as far as possible, from entry into the state and country. If, however, they have been admitted, but have not become citizens, they should be returned to the homes from which they came.

In the report is included a series of recommendations, first, for the State of New York, and, second, for action by the United States Government. Under the first heading it is advised that since at present the only authority under which an insane alien can be debarred from entering this country is the federal law, which can be enforced only by federal officers, the state, through its executive or legislature, should urge upon congress the necessity of providing sufficient appropriations for the efficient enforcement of the Immigration Act and of enacting needed amendments to this. The part of the state in effecting deportation of insane and mentally defective aliens consists in reporting such cases to the federal immigration authorities, furnishing information for the verification of their landing, and certifying to the conditions found and their origin from causes which existed prior to landing. This work, so far as it relates to the insane, should be performed more efficiently each year by the Bureau of Deportation, with the coöperation of the State Hospital Commission and the superintendents of state hospitals, provided that adequate funds are provided for the purpose. For the past three years the number of aliens repatriated and of non-residents returned from the

state has each exceeded the number of aliens deported by the federal authorities. As repatriation at present depends upon the consent of the steamship companies, it is highly desirable that the rights of the state in this matter should be protected without further delay by amendments to the federal and state laws. Better arrangements should be made with the proper authorities of foreign governments for the reception of insane aliens repatriated by the state. Existing facilities for statistical research should be extended and used to the fullest extent for the study of the whole question of the alien insane, along the lines of this inquiry.

The recommendations for action by the federal government are given in two divisions: (*a*) under existing laws, (*b*) new legislation recommended. In the first, as to the exclusion of insane and mentally defective immigrants at the time of their arrival, it is stated that there is need for the employment at the ports of entry of more trained alienists, that, as far as possible, physicians skilled in the detection of mental diseases and defects should be selected from the candidates for admission to the Public Health Service, and that, in order to insure a greater number of alienists, physicians in this service should be detailed for training at hospitals for the insane. All that is required for putting these recommendations into effect is the necessary appropriations, and unless the things are done, much of the legislation recommended will be ineffective. There is also needed the employment and careful training of a sufficient number of interpreters for this part of the medical examination.

A number of recommendations are then made in regard to deportation by federal warrant of insane aliens who become public charges from prior causes or are found in the state in violation of law. In the division of new legislation recommended the following points are taken up: 1. Exclusion of insane and mentally defective immigrants at the time of their arrival or before embarkation. 2. Deportation by federal warrant of insane aliens who become public charges from causes existing prior to landing or are found in the state in violation of the Immigration Act. 3. Repatriation of aliens at expense of state or friends, and with consent of aliens themselves. 4. Appropriations. 5. The proper method of returning the alien insane to their homes. It is impossible to detail the various recommendations here, but the following under the first point may be mentioned as worthy of special attention: It is urged that the Immigration Act should exclude immigrants with chronic alcoholism and those with psychopathic inferiority (many of these cases, though detected at the ports of entry, pass the inspecting officers, as the present law does not forbid their admission); that the act should provide that each immigrant examined receive at the port of entry a certificate that no mental or physical diseases or defects were found, or that those found had been set forth therein; that it should provide for the imposition upon transportation companies of a fine of not less than $200 for bringing to this country any alien whose insanity, mental defect, chronic alcoholism, or constitutional psychopathic inferiority could have been detected by a competent medical examination prior to embarkation; and that it should provide for a special study of the methods employed in the detection of mental diseases and defects among immigrants, the changes desirable, etc., by a board of medical experts, including officers of the Public Health Service and physicians in civil life who are especially familiar with the subjects involved.

PREPARATIONS FOR MILITARY AND NAVAL SURGERY IN MEXICO.

With the final and actual outbreak of hostilities between the Mexicans and the United States troops, the possibilities of active military surgery and nursing in this country become immediate and imminent. The medical corps of both the Army and the Navy are in a state of admirable and prepared efficiency. On April 22, Surgeon-General Braisted of the Navy published the following plans for caring for the naval sick, wounded, and dead.

"The medical department is actively at work preparing for the care of the sick and injured, not alone of our own, but of the enemy as well, as demanded by the Geneva convention.

"The naval organization for the ships and landing parties is complete in all regards, and steps for the care of the sick and wounded and for sanitation and the preservation of health ashore are being taken in conjunction with the Public Health service and Red Cross organization.

"It is the intention to bring the remains of all naval dead to the United States at the

earliest opportunity, dependent upon the circumstances and location attending the fatalities, and either to forward them to the next of kin or to make final interment in a national cemetery, as may be desired by the families of the deceased. All expenses of the dead will be defrayed by the United States."

On April 22 also Surgeon-General Gorgas of the Army presided at a meeting of the executive committee of the Red Cross, at which a program was arranged for nursing at field hospitals.

Military medicine and camp hygiene have made great progress since, and partly in direct consequence of, the war between the United States and Spain, and our state of preparation should be much better now than it was at the outbreak of that conflict. Particularly the development of antityphoid inoculation has enabled the protection of practically our entire army and navy against one of the most dreaded and fatal of military epidemic diseases. Moreover, the Red Cross stands ready to send at immediate notice 4200 nurses to augment the regular nursing corps, so that the deficiency of nurses, which was so grievous at the beginning of the Spanish War, should not now occur.

Probably no class in the community regrets the necessity of war more than do physicians and nurses. Yet, whether from civil or from military life, probably no class will make a readier response to the demand upon them for service at the front, for working on the firing-line is with them a daily professional habit.

AN IMPORTANT TRIAL ON ANIMAL EXPERIMENTATION.

A TRIAL has recently been held in Philadelphia, whose decision will have an important bearing, as precedent, on freedom or restriction of animal experimentation in this country. The Women's Pennsylvania Society for the Prevention of Cruelty to Animals caused the arrest of Dr. Richard M. Pearce, Dr. Joshua E. Sweet, Dr. Alonzo E. Taylor, and three other members of the medical faculty of the University of Pennsylvania, for alleged cruel treatment of dogs after operations. Much of the evidence brought by the prosecution was of the nature of the absurd accusations usually made by anti-vivisectionists.

In the course of his charge to the jury Judge Bregy said:—

"To indicate a view on the part of physicians that these operations upon the dogs were made for scientific purposes to obtain information for the alleviation of human suffering, I charge you that the law of Pennsylvania does not allow pain and suffering, torment or torture to be inflicted upon dogs for any purpose except the relief of the suffering of the dog itself. They have no right to torture a dog or violate the law as I have read it to you for the purpose of obtaining scientific information. The law says that any person that does a thing as I have read it to you—that is, if a person is guilty of wanton cruel torture of an animal he shall be guilty of a crime."

After being out over 48 hours the jury reported a disagreement and was discharged. It is expected that a new jury will be empanelled. Meantime the prosecution, encouraged, has announced its intention to secure new warrants for the arrest of other prominent physicians and invesigators, charging them with cruelty in performing surgical operations on animals.

MEDICAL NOTES.

NEW JERSEY STATE BOARD OF HEALTH.—The somewhat belated thirty-sixth annual report of the board of health of the state of New Jersey, recently published, records the activities of that body for the year ended Oct. 31, 1912, together with the report of the bureau of vital statistics for the same period. The report of the secretary, Dr. Bruce S. Keator, is followed by those of the divisions of medical and sanitary inspection, creameries and dairies, state laboratory of hygiene, food and drugs, sewerage and water-supplies. The report of the bureau of vital statistics consists almost entirely of tabulated data.

THE AMERICAN SOCIETY FOR PHYSICIANS' STUDY TRAVELS.—The American Society for Physicians' Study Travels will make its first tour immediately after the close of the next meeting of the American Medical Association, starting from Atlantic City June 26. The complete itinerary can be obtained upon application to the secretary, Dr. Albert Bernheim, 1225 Spruce Street, Philadelphia, and it will be found to promise an interesting, pleasant and profitable

outing to all participants. The objects of the newly-formed organization are in the main to afford an opportunity to make the best use of one's vacation, time and money, in seeing cities and health resorts, and gaining practical knowledge of their institutions—medical, historical, and municipal—as well as to attend clinics, demonstrations, lectures, illustrated with lantern slides, and public addresses.

In addition, however, many sight-seeing trips have been arranged for, and the path of the Society lies by rail and water through a section of this country and Canada abounding in picturesque, sylvan, and grand scenes, so that the tourist, whatever his individual taste, will enjoy the advantages of healthful recreation en route. It is believed that American physicians and their wives will appreciate the benefits of these tours, which have become so popular, both in Germany and in France, where they are undertaken even more than once annually.

Early bookings, through the secretary, are urged, in order that satisfactory accommodations can be secured for all who desire to participate.

JUBILEE OF MELBOURNE UNIVERSITY MEDICAL SCHOOL.—The medical school of the University of Melbourne, the oldest medical school in Australia, will during the remainder of this current week, celebrate the jubilee of its foundation. During the fifty years of its existence it has already graduated about 1100 practitioners, and now has an attendance of 380 students.

"The Melbourne School has from the first insisted on a five years' course, and its degrees have been registrable in the United Kingdom since 1890. The celebrations will commence on Thursday, April 30, and will last three days. The university is asking the state government to provide funds for the appointment of assistant professors of anatomy, physiology and pathology, the proper staffing of these departments being regarded by the faculty of medicine as the most pressing want of the school. Old graduates are being invited to contribute varying sums annually for five years to a permanent fund, the interest of which will be devoted to the promotion of clinical research in the teaching hospitals of Melbourne. A history of the medical school is being prepared. The jubilee celebrations will include an inaugural ceremony in the Wilson Hall of the university; a series of short addresses on the history, needs and prospects of the school; demonstrations in the laboratories, museums and hospitals; a jubilee dinner, and a theatre party. A portrait of the dean of the faculty, Sir H. B. Allen, is to be painted for presentation to the university."

BOSTON AND NEW ENGLAND.

MILK AND BABY HYGIENE ASSOCIATION.—The recently published fifth annual report of the Boston Milk and Baby Hygiene Association records the work of that organization during the past year. In this period the number of milk stations was increased from 9 to 12. The number of babies cared for in 1913 increased 13% over 1912; 3421 babies made 13,754 weekly visits to the milk station conferences; and 41,945 visits were made by nurses to babies in their homes. Of the babies cared for by the Association, one-half were breast-fed.

PREVENTION OF MILK-BORNE EPIDEMICS.—The Massachusetts State Board of Health has recently sent to every practitioner in the Commonwealth a circular letter calling attention to a recent vote of the Board,

"That beginning March 1, 1914, it shall be the duty of the officers in charge of any city or state institution, charitable institution, public or private hospital, dispensary or lying-in hospital, or any local board of health or any physician in any city or town to give immediate notice (preferably by telephone or telegram, 'collect') to the State Board of Health, Room 145, State House, Boston, Mass., in every case coming to their notice in which typhoid fever, diphtheria or scarlet fever has occurred in the household of any person engaged in the production, transportation or distribution of milk for public sale; and in every case coming to their notice in which typhoid fever, diphtheria or scarlet fever has been due, or presumably has been due, to the consumption of milk infected with material derived from persons infected with said diseases."

The purpose of this regulation is to aid the Board in its effort to prevent epidemics due to the contamination of milk supplies.

MASSACHUSETTS HOMEOPATHIC MEDICAL SOCIETY.—The seventy-fourth annual meeting of the Massachusetts Homeopathic Medical Society, held recently in Boston, was attended by about 200 members. At the closing session, the following officers were elected for the ensuing year: President, Dr. T. E. Chandler of Boston; first vice-president, Dr. Amanda C. Bray of Worcester; second vice-president, Dr. Harry J. Lee of Boston; recording secretary, Dr. E. S. Calderwood of Roxbury; corresponding secre-

tary, Dr. Benjamin T. Loring of Boston; treasurer, Thomas M. Strong of Boston; and chairman of the board of censors, Dr. George R. Southwick of Boston.

HOSPITAL BEQUESTS.—The will of the late Susan H. Leeds, of Boston, which was filed recently in the Suffolk registry of probate, contains a bequest of $500 to the Boston Floating Hospital. It also provides that one-half of the ultimate residue of the estate shall be given to the city of Boston for use in its department for consumptives.

The will of the late Sarah S. Pierce, of Lynn, Mass., which was filed on April 21 in the Essex County registry of probate, provides that on the death of her husband $1000 shall be given to the Lynn Hospital, to be known as the Pierce Fund.

CASES OF INFECTIOUS DISEASES reported to the Boston Board of Health for the week ending March 21, 1914: Diphtheria, 39; scarlatina, 127, of which 13 were non-residents; typhoid fever, 2; measles, 78, of which 1 was non-resident; tuberculosis, 42, of which 3 were non-residents.

The death-rate of the reported deaths for the week was 21.32.

NEW YORK.

VISITING OF INFECTIOUS DISEASES.—On April 1 the City Health Department inaugurated the practice of having all cases of measles, scarlet fever, and diphtheria discharged from the hospitals of the department visited at once by the district nurse of the Bureau of Infectious Diseases, to determine the condition of the patient (as to infectivity, etc.), and the home condition of the family. Advice is given as to the care of the convalescent patient and if necessary the family is referred to the proper charitable organization for financial and other assistance. At least one additional visit is made after the expiration of the incubation period of the disease, to ascertain if any secondary cases have developed. It is announced that it is the intention of the Commissioner of Health to eventually give to this work the full force of hospital social service visiting in the complete sense of the term, although this will, naturally, necessitate a large staff of district nurses. The establishment of a special convalescent home for suitable cases is one of the possibilities hoped for.

PROVISION FOR PERTUSSIS.—At a meeting of the Section on Pediatrics of the New York Academy of Medicine, held on April 9, at which whooping-cough was the topic of the papers and discussions, a resolution was adopted providing for the appointment of a committee to urge upon the Health Department, in view of the present large direct and indirect mortality from the disease, the necessity of making more ample provision for dealing with it.

REORGANIZATION AT PRESBYTERIAN HOSPITAL.—It is announced that the managers of the Presbyterian Hospital, New York, have so reorganized the clinical and scientific work as more closely to coördinate it with the instruction in the College of Physicians and Surgeons, Columbia University. Dr. Theodore C. Janeway, Bard professor of the practise of medicine, has been appointed medical director; Dr. George E. Brewer, professor of surgery, surgical director; and Dr. William G. MacCallum, professor of pathology, pathologist. All these appointees will have continuous service and single responsibility.

ALIEN INSANE IN NEW YORK.—The recently published report of Dr. Spencer L. Dawes, special commissioner on the alien insane in the civil hospitals of New York State, presents a large amount of tabulated statistics, with discussion thereof, and recommendations for both state and nation in dealing with the problem. These recommendations fall under three headings: first, the exclusion of insane and mentally defective immigrants at the time of their arrival; second, the deportation of insane aliens by federal warrant; third, the repatriation of aliens with their consent at the expense of the state or of friends.

GLANDERS.—The latest number of the *Monthly Bulletin* of the City Health Department is largely devoted to the subject of glanders in the horse and in man, which, it declares, is one of those diseases, like typhoid fever and Asiatic cholera, that ought not to exist in our modern civilization. In the Borough of Manhattan in 1913 there were discovered 589 glandered animals among approximately 65,000 horses, or about 9 out of every 1000. The disease is found to be most frequently transmitted through blacksmith shops and public drinking troughs. The returns in the Bureau of Records show that in the city of New York there were in 1909 three deaths from human glanders; in 1910, four; in 1911, three; in 1912, five; and in 1913, one.

Boylan Anti-Narcotic Bill. — Governor Glynn has signed the Boylan anti-narcotic bill, recently passed by the legislature. One of the features of this is that physicians, druggists, dentists and veterinarians are required to obtain from the Health Department blanks, bound in book form, in which to keep duplicate records of the purchase of narcotic drugs and of the manner of their disposal. The governor has also signed the bill amending the State charities law in relation to the commitment of the feeble-minded, and another bill providing for a commission to investigate the custody, treatment and training of the mentally deficient, and submit a full report for action by the next legislature. The law now made effective authorizes any judge of a court of record to determine the mental condition of any person alleged to be feeble-minded, and, after hearing the evidence, to commit, at his discretion, the person to a public institution. It is specified that every application for commitment must be accompanied by the certificate of two physicians to the effect that in their opinion the person named is mentally deficient.

Current Literature

Medical Record.

April 11, 1914.

1. Stark, H. S. *The Phenomenon of Pathological Antagonism; Its Relation to Diabetes Mellitus.*
2. Lerch, O. *A Contribution on the Thymus.*
3. Burrows, W. F. *The Cure of Habitual Constipation by the Intra-abdominal Use of Oil.*
4. Walker, F. E. *Practical Points in Surgery.*
5. Jacoby, A. *Liver Abscess.*
6. Kenefick, T. A. *The Internist and Seminal Vesiculitis.*

New York Medical Journal.

April 11, 1914.

1. Clark, L. P. *Psychopathic Children.*
2. Gordon, A. *Internal Pachymeningitis in Young Children.*
3. Lilienthal, H. *Hypertrophic Pyloric Stenosis in an Infant; Rammstedt's Operation.*
4. Sajons, C. E. DeM. *Toxemias in the Genesis of Hyperthyroidism, and Their Treatment.*
5. Price, G. E. *A Sixteenth Century Paranoiac.*
6. Smith, H. *Plastic Operation for the Restoration of Severed Vocal Cords; Permanent Thyroid Fistula Following Attempted Suicide with a Razor.*
7. Bell, F. McK. *The "Why" of Obesity.*
8. Crenshaw, H. *Dream Interpretation.*
9. Rosenbloom, J. *Gum Camphor as a Preservative for Urine.*

The Journal of the American Medical Association.

April 11, 1914.

1. *Henderson, Y. *Respiratory Experiments on Man.*
2. *Shumacker, L., and Middleton, W. S. *The Cardiac Effects of Immoderate College Athletics.*
3. *Mitchell, A. R. *Ischemic Pains.*
4. Rosenow, E. C. *Etiology of Arthritis Deformans. Preliminary Note.*
5. *Haas, S. L. *Free Transplantation of Bone Into the Phalanges.*
6. Frazer, T. *The Tongue and Upper Alimentary Tract in Pellagra.*
7. Bristol, L. D. *Paratyphoid Fever, with Report Including Post-mortem Examination of a Fatal Case of the "A" Type.*
8. McLean, F. C., and Silling, Z. *Further Simplification of Quantitative Determination of Chlorid in the Urine.*
9. Plummer, W. G., and Ness, G. B. *Tumor of the Middle Cranial Fossa Involving the Gasserian Ganglion.*
10. *Shalet, L. *Clinical Report of Five Hundred and Seventy-One Cases of Pulmonary Tuberculosis Treated with Tuberculin.*
11. Anders, J. M. *An Interesting Case of Chronic Lead-Poisoning with Relapse Following Fresh Exposure.*
12. Wile, U. J. *The Technic of the Intradural Injections of Neosalvarsan in Syphilis of the Nervous System. A Preliminary Report.*
13. Wallace, R. *An Unusual Case of Vaccine Anaphylaxis.*
14. Clark, O. *Exophthalmic Goiter as a Clinical Manifestation of Hereditary Syphilis.*
15. Tousey, S. *A Case of Disseminated Carcinoma of the Breasts and Axillae Improved by Radium.*
16. Barton, W. M. *The Favorite Formula or Pet Prescription.*

1. Henderson gives concrete examples of an interesting series of experiments on respiration in the normal human subject. No conclusions are drawn. The paper is a statement of effects.

2. The authors in a careful and well tabulated review find that athletic training leads at first to physiologic hypertrophy of the heart, but when prolonged and weakened by severe athletic contests it usually leads to hypertrophy plus dilatation of a variable degree, frequently marked by valvular insufficiency. Functionally, the hypertrophied heart, even when dilated and giving distinct evidence of valvular insufficiency, may prove more fitted to carry the man through a severe athletic contest than a normal heart.

3. Mitchell finds that many pains for which we are otherwise unable to find a proper cause are due to a temporary ischemia or anemia of the part, which, under proper treatment with agents causing vasodilation, are readily cured.

5. Haas successfully transplanted free bone between resected areas in the phalanges and obtained satisfactory union and functional results.

10. Shalet believes that every case of tuberculosis should be treated with tuberculin. Of the pulmonary type there is no way of telling beforehand what cases will be benefited the most, but all should be given a trial. In his series 25% showed distinct improvement or were apparently cured; 15% were made worse. The effect of tuberculin on localized visible tuberculosis, such as fistulae in ano, glands of the neck, etc., is marked, and in the case of glands of the neck by far the treatment of choice. [E. H. R.]

BULLETIN OF THE JOHNS HOPKINS HOSPITAL.

APRIL, 1914.

1. *SELLARDS, A. W. *A Clinical Method for Studying Titrable Alkalinity of the Blood and Its Application to Acidosis.*
2. *BROWN, L. *Some Errors in the Diagnosis of Pulmonary Tuberculosis.*
3. *GREY, E. G. *Observations on the Protective Enzymes of the Body. (Abderhalden.)*
4. SHIPPEN, L. P. *Principal Types of Micro-Organisms in Baltimore Milk.*
5. JOSEPH, M. *Bacteriological Findings in Baltimore Oysters.*
6. DIETZ, M. *Brief Note on the Baltimore City Water.*

1. This is a detailed chemico-physiological article on the complex subject of acidosis, diminished alkalinity, etc., and their relation to diabetes and certain obscure comas. The paper shows the result of much careful work.

2. Brown, in a paper most valuable on account of its frankness, describes various mistakes he has made in the diagnosis of pulmonary tuberculosis. Of great interest is the description of 5 cases diagnosed as phthisis which turned out to be Hodgkin's disease. Among other causes for error were malignant disease, bronchiectasis and infarction of the lung.

3. Grey, as the result of his experiments, concludes that the Abderhalden ferments are specific.

[J. B. H.]

SURGERY, GYNECOLOGY AND OBSTETRICS.

APRIL, 1914.

1. MAYO, C. H. *Resection of the Rectum for Cancer, with Preservation of the Sphincter.*
2. *BLOODGOOD, J. C. *Carcinoma of the Lower Lip; Its Diagnosis and Operative Treatment.*
3. *PATERSON, H. J. *The Operation of Gastrojejunostomy and the Principles Which Should Determine Its Use.*
4. *CRILE, G. W. *Cholecystectomy vs. Cholecystostomy and a Method of Overcoming the Special Risks Attending Common-Duct Operations.*
5. DAVID, V. C. *A Bacteriological Study of Fifty Cases of Non-Tuberculous Diseases of the Bladder and Kidney.*
6. BEEBE, S. P., AND VAN ALSTYNE, E. V. N. *Treatment of Transplantable Rat Sarcoma by Fulguration.*
7. *KELLY, H. A., AND DUMM, W. M. *Urinary Incontinence in Women, without Manifest Injury to the Bladder.*
8. FULLERTON, W. D. *Fibroid Tumors of the Ovaries.*
9. STURGIS, M. G. *Mixed-Cell Tumors of the Soft Palate.*
10. *SWEET, J. E., AND STEWART, L. F. *The Ascending Infection of the Kidneys.*
11. *BLAIR, V. P. *Dental Disorders and Peridental Infections; Their Relation to Neighboring Organs.*
12. CASTLE, O. L. *Primary Carcinoma of the Liver in Childhood.*
13. KANAVEL, A. B. *Mobilization of the Duodenum.*
14. *JOHNSTON, G. C. *The Pituitary Gland in Its Relation to Epilepsy.*
15. *CODMAN, E. A. *The Product of a Hospital.*
16. CAULK, J. R. *Incrustations of the Renal Pelvis and Ureter.*
17. HARTZ, H. J. *Gastric Sarcoma.*
18. MOSCHOWITZ, A. V. *The Pathogenesis and Treatment of Herniae of the Linea Alba.*
19. CORNER, E. M. *Arthrotomy of the Hip.*
20. FORBES, A. M. *The Treatment of Scoliosis.*
21. HEINEBERG, A. *Uterine Endoscopy; an Aid to Precision in the Diagnosis of Intra-Uterine Disease.*
22. TOREK, F. *Laryngectomy Combined with Gastrostomy.*
23. SCHMITZ, H. *Massive X-raying in Gynecology.*
24. COERR, F. H. *A Double Lever Instrument Devised for the Open Reduction of Fractures.*
25. ANDERSON, W. J. *Head Injuries; Some Conclusions.*

2. Bloodgood's article is the type of exposition which should be in the hands of every practitioner throughout the country. He divides his cases into three groups: 1a, in which local excision of the growth only was done, after five years the percentage or probability of cure was found to be 63%. Group 1b, glands negative, shows 95% cures, and group 1b, glands positive, shows only 50% cures. He believes that the operative removal of the glands is always indicated, and the percentage of cures depends largely on early operation. The article is well illustrated and the figures should be studied in detail.

3. Paterson finds that after gastrojejunostomy, which he believes to be a physiological operation and not a purely mechanical one, the total gastric chlorides are reduced on the average 30%. He also thinks that we might safely return to the anterior operation without harm. Occlusion of the pylorus after the above operation is an unnecessary complication and based on erroneous pathology. Gastrojejunostomy is preferable to excision of ulcer near the pylorus or in the body of the stomach.

4. Crile believes that in the type of case which has recurrent cyclic disturbances or repetition of previous symptoms after cholecystostomy, that cholecystectomy is the operation of choice, the latter showing less morbidity. The clinical end results of cholecystectomy are good, while in unsuitable cases cholecystostomy is followed by recurrent cholecystitis. If acute infection be present then in most cases cholecystostomy should be done first, to be followed later by cholecystectomy.

7. Kelly and Dumm describe the progressive incontinence of urine occurring in middle aged women without history of any trauma except childbirth, and the numerous methods, both medical and surgical, for its control, and describe and illustrate a simple operative procedure, which can be done under local anesthesia. Of twenty cases done sixteen have been cured. The paper is a valuable one.

10. This paper is an extremely interesting and practical piece of work on a so far little explained subject. The authors conclude from extensive evidence furnished from the literature and experiment that an extensive network of lymph-vessels and channels exists in the mucosa and submucosa, in the external coats of the bladder and the ureters and in the entire structure of the kidney. This network in the bladder anastomoses freely with the lymphatics of the bladder at the one end, and with the lymph apparatus of the kidney at the other end. They believe that an ascending infection travels through this lymphatic system, not through the blood vessels of the ureter nor through the lumen of the ureter. They give ample reason why the blood vessels and the ureter can be excluded as avenues of ascending infection. The paper is well worth careful reading and is suggestive in the way of treatment.

11. The author makes the sweeping but more or less convincing statement that there is no organ or tissue in the whole body that may not be at the mercy of infection that gains entrance through or around the teeth.

14. Johnston suggests that epileptic seizures may be due to the deprivation of the system of the products of the pituitary gland and suggests feeding these patients on this substance, with gradual withdrawal of bromides.

15. Codman's article on the product of a hospital is of very practical importance. [E. H. R.]

THE LANCET.

MARCH 28, 1914.

1. *WHITEHOUSE, H. B. *Hunterian Lectures on the Physiology and Pathology of Uterine Hemorrhage.*
2. BLUMFIELD, J. *Anesthetics and Diagnosis.*
3. *NEVE, A. *An Operation for Hemorrhoids; a Review of Eight Hundred and Fifty Cases.*
4. *COOK, J. B. *An Investigation into the Effects of Drinking-water upon the Causation of Dental Caries in School Children.*
5. TRESIDDER, A. G. *A Case of Malarial Coma Lasting Forty-six Hours; Recovery.*

1. In an article illustrated with numerous plates, Whitehouse in the first part of the Hunterian Lecture discusses uterine hemorrhage and its physiology and pathology. He has done numerous experiments on the coagulation time of blood at menstrual periods and of the menstrual blood itself as to the presence of antithrombin in this and in the endometrium. He describes numerous other experiments along this line.

3. Neve reviews his results on 850 operations for hemorrhoids.

4. Cook believes that excessively soft water is a causative factor of importance in producing dental caries in children and should be borne in mind along with other causes. [J. B. H.]

BRITISH MEDICAL JOURNAL.

MARCH 28, 1914.

1. *MACWILLIAM, J. A., AND MELVIN, G. S. *Systolic and Diastolic Blood Pressure Estimation, with Special Reference to the Auditory Method.*
2. *MURRAY, J. R. *Systolic and Diastolic Blood Pressures in Aortic Regurgitation.*
3. ROBINSON, H. B. *Three Cases of Pancreatic Cyst.*
4. BEVERS, E. C. *A Renal Cyst Causing Chronic Intestinal Obstruction.*
5. *RAEBURN, J. A. *Subcutaneous Injections of Emetine in Pulmonary Tuberculosis.*
6. ROSEBRUGH, A. M. *An Economical Treatment of Inebriates.*
7. *SHUFFLEBOTHAM, F. *The Milroy Lectures on the Hygienic Aspect of the Coal-mining Industry in the United Kingdom. Lecture IV.*

1. The writers discuss the significance of diastolic blood pressure as compared to the variable systolic. They describe the auditory method, its application, the apparatus used and the estimation of systolic and diastolic pressures by this method. They believe that its simplicity, care and rapidity are points in its favor. In brief, this method consists in using a tambour, connected with the ears as a stethoscope, placed underneath the pressure cuff and over the brachial artery above the bend of the arm. Pressure is applied so as to shut off the pulse entirely, then as it decreases a sharp thud is heard at the exact time that the blood first goes through the artery.

2. Murray, using the auditory method, discusses blood pressure in aortic regurgitation under varying conditions.

5. Raeburn, endorsing the results of Flandin and Joltrain as to the value of emetine in hemorrhage in consumption, also found it of great value in cases of bronchitis alone, in cases presumably tuberculous but without bacilli in the sputum, but of little value in open cases of pulmonary tuberculosis with bacilli present.

7. Shufflebotham believes that miners' nystagmus is due to 4 causes: (1) defective illumination in the mines, (2) the peculiar cramped position of the miners, (3) refractive errors frequent among the miners themselves, and (4) the frequent injuries which miners sustain to themselves and to their eyes. He discusses treatment of the eyes and of the general condition and preventive measures in detail. [J. B. H.]

THE PRACTITIONER.

APRIL, 1914.

1. *BARR, J. *On the Functions of the Thyroid, the Suprarenal and the Pituitary Glands.*
2. *ROLLESTON, H. D. *Chronic Splenic Anemia and Banti's Disease.*
3. *TOOTH, H. H. *On the Indications for Surgical Treatment in Intracranial Tumor.*
4. *EDMUNDS, A. *Ectopia of the Bladder.*
5. PORTER-PARKINSON, J. *Difficulties of Diagnosis in Disease in Children.*
6. SMITH, E. B. *Some Points in the Diagnosis and Treatment of Epilepsy in Childhood.*
7. PARDHY, V. M. *Nephroptosis (Movable Kidney, Floating Kidney, Dropped Kidney).*
8. MACADAM, W. *The Significance of the Urinary Excretion of Creatin and Creatinin.*
9. DUNCAN, C. H. *Autotherapy in the Prevention and Cure of Purulent Infections.*
10. SIBLEY, W. K. *The Treatment of Eczema.*
11. WHITING, M. S. *The Extraction of Diabetic Cataract.*
12. MCCANN, F. J. *The Recent Progress of Gynecology.*
13. YEARSLEY, M. *A Retrospect of Otology.* 1913.
14. GORDON, W. *The Value of the Cardiac Sign in the Diagnosis of Gastric Cancer.*
15. CORBEN, C. *Schlatter's Disease.*

1. This is a general clinical article reviewing the functions of various ductless glands, although presenting nothing new.

2. Rolleston in a scholarly way, goes over the subject of chronic splenic anemia and its separation from Banti's disease and other conditions. Very little is known in regard to its pathogeny except that as splenectomy cures the disease, the spleen must in some way be responsible, and that there is *not* any active haemic infection or intoxication at work; also that splenic inadequacy is not the cause of the anemia. He discusses in detail the ways in which the spleen may cause the anemia. Later on he seems to contradict himself by stating that (*a*) in splenic anemia a chronic infective or toxic process has (*c.f.* above) its headquarters in the spleen, which thereby undergoes fibrotic enlargement; (*b*) that the large spleen mechanically causes gastric hemorrhage and the resulting anemia, and that poisons from the spleen eventually cause cirrhosis of the liver. He describes the clinical picture, blood changes, etc., symptoms, differential diagnosis, etc. There is an elaborate list of references.

3. Tooth, in a long paper, records his study of 497 cases of cerebral tumor which have come under observation and treatment at the National Hospital in London from 1902 to 1911. He first discusses these tumors and operations topographically, those occurring in the forebrain and those in the cerebellum. He describes the urgent signs and symptoms, the nature of the operation, site, sequelae of the first and second stages of such operations and results. The paper is a most valuable contribution to the subject.

4. Edmunds, in a long paper with excellent plates, discusses ectopia of the bladder. He believes that plastic operations to merely reconstruct the bladder are unsatisfactory and that transplantation of the base of the bladder is better than the separate transplantation of the ureters. The wound should be left freely open. [J. B. H.]

MÜNCHENER MEDIZINISCHE WOCHENSCHRIFT.

No. 12. MARCH 24, 1914.

1. GAUPP, R. *The Scientific Importance of Wagner's Case.*
2. BECKER, T. *The Diagnosis of Paranoia.*
3. *RACH, E. *Anatomical Types of Tuberculosis in Children Which are Recognizable by Radiographs.*
4. GRUBER, G. B. *Recent Studies on the Pathology of Trichinosis.*
5. RIETSCHEL, HEIDENHAIN AND EWERS. *Fever in Infants, Following Chloride Infusions.*
6. GABASTON, J. A. *A New Method for Freeing the Placenta.*
7. *KLEIN, W., AND FRÄNKEL, E. *The Effective Elements of the Wassermann Antigen.*
8. FRIIS-MÓLLER, V. *An Atypical Case of Tuberculosis.*
9. BERNDT, F. *The Operative Treatment of the Severest Forms of Flat-foot.*
10. LEXER, K. *Wounds from Impalement.*
11. GOLDSCHMIDT, M. *The Mechanism of Resorption of the Lens.*
12. MORPUGO, F. *A Case of Retinal Hemorrhage Following Calomel and Salvarsan.*
13. SCHWAB. *Yatren Gauze, a Dressing for Surgical Wounds.*
14. HIRT. *The New Psychological Institute in the University of Munich.*
15. KLEIN, G. *The Measurement of Ray Dosage in Radium and Mesothorium Treatment.*

3. Rach has controlled radiological findings in the lungs of children with tuberculosis by autopsy. He believes that it is possible to differentiate six different anatomical types of the disease by a combination of x-ray and physical findings. These are: (1) Ghon's primary lung focus, where isolated tuberculous foci are found with or without tuberculosis of the bronchial glands. (2) Tuberculosis of the glands, where isolated shadows are seen in the region of the bronchial lymph nodes. (3) Hilus tuberculosis of two forms, (*a*) arising from an intrapulmonic focus and extending along the lung hilus, (*b*) due to extension inwards from a primary infection originating from tuberculosis of the lymph nodes of the hilus. (4) Miliary tuberculosis of the lungs. (5) Tuberculosis of sucklings, characterized by extensive cavity formation. (6) Apical tuberculosis analogous to that found in adults.

7. At present most serologists use alcoholic extracts of normal organs as antigen in the Wassermann reaction. It has been found empirically that lecithin, oleic acid, and cholesterin have certain specific antigenic properties. This has led to attempts to isolate the specific chemical antigen from these various extracts.

Klein and Fränkel have made chemical and serological studies with an alcoholic extract of beef heart. They believe that the most powerful antigenic action was obtained by the combined effect of lecithin with a small amount of an unrecognized soapy substance and free cholesterin. Whether more complicated substances have to do with the reaction will be demonstrated by future studies. [R. F.]

No. 13. MARCH 31, 1914.

1. *ENGELHORN, E., AND WINTZ, H. *A New Skin Reaction for Pregnancy.*
2. ESCH, P. *The Dosage and Effect of Intramuscular Injections of Pantopon-Skopolamin During Labor.*
3. CERTEL, C. *Laudanum in Labor.*
4. ZWEIFEL, E. *The Technic of Sacral Anesthesia.*
5. *FUNK. C. *The Prophylaxis and Treatment of Pellagra According to the Vitamin Studies.*
6. ROST, G. A. *Vaccines in Gonorrhea.*
7. HEURLIN, M. *A Simple Method for Differentiating by Culture True Diphtheria from Pseudo Diphtheria Bacilli.*
8. MAYER, W. *The Serum Diagnosis of Epilepsy.*
9. JOSEPH, J. *Plastic Operations on the Nose.*
10. VULPIUS, O. *Lengthening of Tendons.*
11. SCHLIMPERT, H. *Teaching with Blumreich's Mannikin.*
12. MÜLLER, M. *The Value of Legalizing Prostitution.*
13. RUPPRECHT, K. *The Alcoholic Criminals among the Youth of Bavaria.*
14. MUCK, O. *The Cause of a Characteristic Torticollis in Lesions of the Posterior Fossa of the Skull Which Encroach on the Limitations of This Cavity.*
15. SCHARNKE. *The Treatment of Delirium Tremens.*
16. KRÖNIG, E. *An Attempted Suicide with Digalen.*
17. WEISZ, E. *A Simple Apparatus for the Treatment of Ankylosed Wrist-Joints.*
18. BERGER, D. H. *The Practical Work of a German League for Medical Literature.*

1. Engelhorn and Wintz have made "Placentin" analogous to tuberculin and luetin, to be used for the intracutaneous diagnosis of pregnancy. Its method of preparation is not sufficiently simplified for general use, so Engelhorn and Wintz do not describe it. It is an extract of placenta which is injected intracutaneously according to Pirquet's method. The results are either sharply positive or negative within forty-eight hours, and are most marked thirty-six hours after injection. Among seventy pregnant women, the reaction was positive in every case, as early as the seventh or eighth week after conception, and as late as the tenth month. In fifty-three non-gravid patients the reaction was negative in every case except one, which was that of a six-year-old child. The reaction did not remain positive after the fourth day of the puerperium.

Engelhorn and Wintz conclude that a larger series of cases must be tested before too much is claimed for the specificity of the "Placentin" reaction. They feel justified, however, in publishing these suggestive results.

5. Funk believes that beri-beri is caused by the eating of rice which has been polished free of its "vitamin" bodies, and that pellagra is due to the ingestion of polished maize. He comments upon the frequency and high mortality of pellagra in this country. Between 1907-1912 there were twenty thousand fatal cases.

Funk considers that the prophylaxis and treatment of pellagra is simple. Maize, only, which has been untreated should be eaten, and in any pellagra zone other "vitamin" containing vegetables should be cultivated, or if this is impossible, they should be imported duty free. For treatment, foods should be given in abundance which contain "vitamin" substances, such as uncooked fruit-juice and milk, butter, and for carbohydrates, potatoes. [R. F.]

Miscellany.

EXPERIENCE WITH EUGENICS IN PHILADELPHIA.

The following item from a recent issue of the Philadelphia *Bulletin* is another evidence of the impracticability of so-called eugenic marriage laws, at least in their present form. The failure of the experiment in Philadelphia is analogous

to that in Detroit, Mich., and for a fundamental reason well stated in the last paragraph of the quotation:

"After an eight months' trial, Chief Clerk Ferguson of the local marriage license bureau virtually admits that the amended marriage license law partly based on 'eugenics' is a failure, when he says that only one case has arisen in Pennsylvania since the act became effective, where an applicant was refused a permit for disabilities classified under it. He points out that the weakness of the statute in practice lies in the fact that the clerks have no right to deny a license so long as the applicants give technically 'satisfactory' answers to the prescribed questions concerning health and physical condition, even though the replies may be palpably untrue.

"In other words, about the only result accomplished by the change in the old laws has been to impose increased burdens on the clerks and to subject all applicants to annoying and embarrassing personal questions, without preventing the unfit from entering matrimony. It is inconceivable that every one of the thousands of persons who have applied for licenses in the State since the first of last August should have been free of the impediments recited by the law either in the matter of bodily soundness or in ability 'to support a family' as the clause is worded, if the statistics compiled by the sociologists and eugenists are right in their conclusions regarding the dissemination of disease and other forms of wretchedness.

"The ineffectiveness of the Pennsylvania law is not remarkable, however, for the same result has been reported in other States where even more drastic legislation has been attempted. It only goes to prove what the eugenic theorists entirely overlook, that when couples make up their minds they are suited to each other no mere law is going to prevent them from mating."

INFANT MORTALITY IN NEW ZEALAND.

A PAMPHLET on methods of reducing infant mortality, as illustrated in the work of the New Zealand Society for the Health of Women and Children, has recently been published by the children's bureau of the United States department of labor. In her introduction to this pamphlet, Miss Julia C. Lathrop, chief of the bureau, writes as follows:—

"The infant mortality rate of New Zealand has been for some time recognized as the lowest of any country in the world, and it is stated that recent further reductions are due in large measure to the activity of this society. As an example of its value, the consul general states that the work of the society has reduced infant mortality in Dunedin, a residential city of about 60,000 inhabitants, 50% during five years, from 1907 to 1912. Because of the absence of adequate birth and death registration in the United States, the infant death-rate of this country as a whole is unknown, but estimates tend to show that it is at least twice the rate of New Zealand, which the registrar general of that country reported in 1912 to be 51 per 1,000. New Zealand, like certain of our states, is a young and vigorous country with a scattered population and with no large cities, and there is every reason to believe that similar volunteer effort in this country would produce similar results. In view of the marked and growing interest in the preservation of infant health in the smaller cities and rural communities of the United States, I believe that the account of the methods of the New Zealand society is especially timely. It will be seen that public interest is strongly enlisted in its efforts. Seventy volunteer committees in as many districts maintain the educational and nursing work in conjunction with the central office, and the government itself assists in various ways. The detailed statement which follows is not offered for the purpose of urging exact reproduction of the New Zealand organization, but rather to stimulate interest in working out whatever methods are practicable locally for securing the same results."

The following points are summarized as conclusions from this study of conditions in New Zealand:—

"1. The recognition that not only in cities but in country districts provision should be made for instructing mothers in the care of babies; teaching young girls all practical methods of home making, including baby hygiene and feeding; giving proper hospital care to sick babies, and maintaining conferences where mothers can have their children examined and can thus learn of any bad condition before it has progressed beyond recovery.

"2. The need of definite knowledge of just what the problem is in the different communities. This knowledge it is not possible to obtain in many districts of the United States, because, on account of the incomplete registration of births and deaths, this country does not know how many babies are born and how many die. Therefore, to urge the passage of good registration laws in states in which such laws do not exist and to force efficiency in administering the registration laws in other states is a definite requirement.

"3. The need of coöperation between volunteer and public health authorities in reducing the infant mortality.

"4. Recognition of the merit of the methods of the New Zealand Society for consideration by club women and others in making plans for infant-welfare campaigns in rural communities in the United States.

"5. The value of methods which include districting the territory in a state and organizing local committees having supervision of the welfare work; the employment of nurses whose

services are chiefly educational; newspaper publicity, and the publication of pamphlets and other literature on hygiene and the care of babies and children, containing advice vouched for by the best medical authorities and expressed in direct, simple methods."

It would seem that methods which have so well succeeded in the community of New Zealand might to advantage be adopted to meet the same problem in our own country.

Correspondence.

A PHENOMENON OF ARTIFICIAL RESPIRATION.

22 APRIL, 1914.

Mr. Editor: Some time ago, I communicated to you in a letter (which you courteously did me the honor to publish in the issue of your JOURNAL for Sept. 26, 1912, Vol. clxvii, p. 453) a phenomenon of artificial respiration, which I had then observed for the first time, and which consisted in the passage of air completely through the alimentary tract of a badly asphyxiated newborn baby undergoing mouth-to-mouth insufflation.

Last week I repeated this observation in the case of a baby born by Caesarean section, in whose attempted resuscitation I had the privilege of assisting. Mouth-to-mouth insufflation was employed, as in the previous case, and within a few moments the passage of air-bubbles from the rectum, synchronously with each insufflation, was observed. The sphincter was completely relaxed, and the amniotic fluid had been considerably stained with meconium *in utero*.

The constant passage of air through the alimentary tract caused considerable abdominal distention, which was partly relieved by passing a catheter into the stomach. The distention, however, did not seem to embarrass the cardiac action, which continued regular and of good quality. For a time the baby breathed fairly well, but seemed to suffer from inspiratory dyspnea, such that mouth-to-mouth insufflation again became necessary, with the same air-bubble phenomenon as before.

After two and one-half hours, the baby's condition became so precarious that a low tracheotomy was done in the hope of relieving the respiratory obstruction. A catheter was then passed through the tracheotomy tube, and oxygen forced directly into the lungs. For a time the baby's color improved; but it failed to establish spontaneous respiration and died with the ultimate decline and cessation of the heart-beat.

Unfortunately no autopsy was permitted, so it could not be determined whether the obstruction was due to an enlarged thymus, as was suspected. In any event this second occurrence of the air-bubble phenomenon in a fatal case of infantile asphyxia seemed to me of sufficient interest to call to the attention of your readers. I am inclined to believe that it could occur only in cases in which the asphyxia had caused complete intestinal paralysis, and, therefore, is always of very serious prognosis.

Very truly yours,

ROBERT M. GREEN, M.D.

78 Marlborough St., Boston.

SOCIETY NOTICES.

NEW ENGLAND PEDIATRIC SOCIETY.—The thirty-second meeting of the New England Pediatric Society will be held at the Boston Medical Library at 8.15 p. m., on Friday, May 1, 1914.

The following papers will be read:

1. "The Fasting Metabolism of Infants," Hans Murschhauser, Ph.D., Düsseldorf, Germany.
2. "Some Developmental Causes of Poor Health in the Child: Their Importance to the Adult," John Bryant, M.D., Boston.
3. "Myotonia Congenita: With Report of Cases," Charles Hunter Dunn, M.D., Boston.

Light refreshments will be served after the meeting.

C. A. PRATT, M.D., *President.*
FRITZ B. TALBOT, M.D., *Secretary.*

MASSACHUSETTS SOCIETY OF EXAMINING PHYSICIANS.—A meeting of the Society will be held at the Hotel Westminster, April 30, 1914. Addresses through the courtesy of the Surgeon-General of the Army by Lieut.-Colonel Henry A. Shaw and Major George M. Ekwuzel of the Medical Corps of the Army. Subject: "Medicine and Surgery in the United States Army."

Dinner at 6.00 p. m. Address at 7.30 p. m.

J. H. STEVENS, M.D., *Secretary.*

NATIONAL CONFERENCE OF TUBERCULOSIS SECRETARIES.—The second annual meeting of the National Conference of Tuberculosis Secretaries will be held at the New Willard Hotel, Washington, D. C., May 7 and 8, 1914.

THE MISSISSIPPI VALLEY CONFERENCE ON TUBERCULOSIS to be held in Memphis, May 12, 1914, at time of National Conference of Charities and Correction. Conference called by A. E. Kepford, State Lecturer of the Department of Tuberculosis of the Iowa State Board of Control, and James Minnick, Secretary of the Illinois State Association for the Prevention of Tuberculosis.

RECENT DEATHS.

DR. CHARLES HUNT PORTER, who died on April 17, in Taunton, Mass., was born at Quincy Mass., in 1871. He obtained his preliminary education at the Adams Academy in that city, and received the degree of A.B. from Harvard College in 1892. He first studied theology, and was ordained to the ministry in 1895. He then entered the college of Physicians and Surgeons, of Columbia University, from which he received the degree of M.D. in 1908. He practised for a time at Springfield before settling in Taunton. He is survived by his widow.

DR. CHARLES PICKERING PUTNAM died at his home in Boston, April 22, 1914, aged 69 years. He was born in Boston Sept. 15, 1844; was graduated from Harvard College in the class of 1865 and from the Harvard Medical School in 1869. He became a Fellow of The Massachusetts Medical Society in this year. He was one of the founders of the Boston Medical Library in 1875 and had served on its executive committee and committee on library and finance continuously until his death.

DR. M. M. JOHNSON, who died at Hartford, Conn., March 15, 1914, was born at Malone, N. Y., April 21, 1844. He graduated from Brown University in 1870 and received his M.D. degree from the University of New York. He was one of the foremost surgeons of New England for many years, writing numerous articles for medical journals.

ASSIGNMENTS OF NAVY SURGEONS.

DR. F. W. F. WIEBER, medical director at the Charlestown (Mass.) Navy Yard, has been detached from duty there and detailed to the Portsmouth (N. H.) Navy Yard.

DR. N. J. BLACKWOOD has been assigned to duty at the Charlestown Navy Yard.